Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports

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MEASURE Evaluation Technical Report Series, No. 5

The technical report series is made possible by support from USAID under the terms of Cooperative Agreement HRN-A-00-97-00018-00. The opinions expressed are those of the authors, and do not necessarily reflect the views of USAID.

July 2000

Printed on recycled paper

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Recommended Citation:

Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports. **MEASURE Evaluation Technical Report Series No. 5.** Tara Sullivan and Jane Bertrand (Editors). Carolina Population Center, University of North Carolina at Chapel Hill. July 2000.

Contents

Preface

The country reports from the Quick Investigation of Quality (QIQ) field test have been compiled in an effort both to describe the results of the field test and to make recommendations for future applications based on the lessons learned. This compilation of reports titled "Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports" includes an overview of the QIQ, country reports from four countries (Ecuador, Turkey, Uganda, and Zimbabwe), methodological lessons learned, cost and practicality of the methodology, and recommendations for future applications. Authorship for individual chapters is indicated in the text. Those chapters without authors were prepared by the editors of this volume, Tara Sullivan and Jane Bertrand.

This initiative to develop a low-cost and practical methodology to be used for routine monitoring of quality of care in family planning and other reproductive health services, was made possible through funds from the USAID Office of Population (Cooperative Agreement HRN-A-00-97-00018-00). The instruments and guidelines developed by the MEASURE *Evaluation* Project in collaboration with members of the Monitoring and Evaluation Subcommittee of the Maximizing Access and Quality (MAQ) initiative[1] are designed for use by USAID Missions in the R4 process and by other organizations interested in monitoring quality.

The following are the three avenues through which the methodology and the results of the field test of the Quick Investigation of Quality (QIQ) are available:

- **Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports**

This compilation includes the results from the field test in four countries, as well as lessons learned and recommendations for future applications of the methodology[2]. Specifically, it contains the following:

  - overview of the field test;
  - case studies from Ecuador, Turkey, Uganda, and Zimbabwe;
  - methodological lessons learned;
  - cost and practicality of methodology;
  - recommendations for future applications;
  - summary results from the short list of indicators

- **Quick Investigation of Quality (QIQ): A User's Guide for Monitoring Quality of Care**

The user's guide contains all of the tools necessary to routinely monitor quality of care from data collection to data analysis and presentation of results. It contains the following:

  - overview of the QIQ (including objectives, short list of indicators, and methodological and ethical issues);
  - sampling guidelines;
  - guidelines for training field personnel;
  - instruments and guidelines for data collection;
  - summary results from short list of indicators (tabular and graphic);
  - comprehensive plan of analysis.

[1] The MAQ is a USAID Office of Population initiative to **M**aximizing **A**ccess and **Q**uality in family planning and reproductive health services.

[2] Note: The compilation of country reports will be published through the MEASURE *Evaluation* Technical Report Series.

- **Quick Investigation of Quality (QIQ): A Compendium of Instruments and Field Manuals from Five Countries**[3]

This compendium includes the instruments and field manuals *actually* used in the QIQ field test for four countries: Ecuador, Turkey, Uganda, and Zimbabwe. It also includes the instruments and field manuals from Paraguay, which use a similar methodology [4].

All of the above supporting documents from the QIQ field test will be available through the MEASURE *Evaluation* Project. For further information, please contact:

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[3] The instruments and manuals used in each country are available through the MEASURE *Evaluation* Project website: www.cpc.unc.edu/measure/.
[4] Note: For some countries the instruments and field manuals are available in the local language.

Acknowledgements

The MEASURE *Evaluation* Project and the M&E Subcommittee of the MAQ would like to express our thanks to those whose hard work and dedication have made both the QIQ field test and the country reports on the experience possible. First, we would like to acknowledge the Office of Population, United States Agency for International Development (USAID) for its support of the QIQ field test, in particular James Shelton and Krista Stewart. We also thank Amy Tsui and Ties Boerma for their support and technical guidance throughout the duration of this activity.

We are also grateful to those people who were involved in the in-country data collection for the field test and/or who provided invaluable assistance in developing early versions of the instruments and guidelines: Karen Beattie, Ruth Bessinger, Ann Blanc, Siân Curtis, Erin Eckert, Amparo Gordillo, Charles Katende, Rodney Knight, Abdelylah Lakssir, Robert Miller, Paul Mudzongo, Sangeeta Pati, Ernesto Pinto, William Sambisa, James Shelton, Krista Stewart, Ersin Topcuoglu, Amy Tsui, and Marilyn Wilkinson. The field test and this document would not have been possible without their hard work and dedication to this initiative. Several other people participated in multiple stages of the QIQ field test: Ruth Bessinger, Siân Curtis, Gary Lewis, and Tim Williams.

In addition, we would like to thank those who compiled the final version of the country reports: Meghan McCarrier-Harding and Clayton Williams.

Finally, a very special thanks is extended to all of the in-country people who participated in the QIQ field test and to those who were involved in the initial development of this methodology. These individuals are recognized in Appendix B and Appendix C respectively.

Chapter I

Overview of Quick Investigation of Quality (QIQ)

1. Overview

The Quick Investigation of Quality (QIQ), spearheaded by the MEASURE *Evaluation* Project in collaboration with the Monitoring and Evaluation Subcommittee of the MAQ,[5] was initiated in response to the need for a low-cost, practical means to routinely measure quality of care (QC) in family planning services. The QIQ was developed with support from the USAID Office of Population. Numerous USAID cooperation agencies (CA's) contributed to the process of identifying a "short list" of QC indicators, developing the set of instruments to measure them, and field testing the instruments in four countries: Ecuador, Turkey, Uganda and Zimbabwe.[6] This compilation includes an overview of the field test, country reports from four countries (Ecuador, Turkey, Uganda and Zimbabwe), methodological lessons learned, an examination of the cost and practicality of the methodology, and recommendations for future applications.

1.1 Objectives of field test of Quick Investigation of Quality (QIQ)

The primary objective of this initiative was to develop and test a practical, low-cost methodology for monitoring quality of care (QC) in clinic-based family planning programs in developing countries. Although programs at the field level are expanding beyond family planning to offer more comprehensive services, this preliminary effort focused on family planning, with the expectation that the instruments could be modified to monitor other reproductive health services provided by an organization wishing to do so.[7]

The specific objectives of the field test in selected countries were

1. To determine the feasibility of data collection
2. To test the comparability of results on selected variables obtained from two instruments: exit interview and client-provider observation
3. To experiment with a sampling strategy that requires fewer facilities to be visited but yields representative results
4. To determine the cost of collecting this type of data as a "stand-alone" exercise
5. To produce data on the quality of care in a network of clinic facilities, for use in program improvement in a given country

The specific objectives for each of the field test countries differed based on local concerns as outlined under "Users of QIQ" (below). In Ecuador, a census of the CEMOPLAF and APROFE clinics was taken with the aim of comparing two types of service provider (doctors vs. obstetrical nurses). In Turkey, a sample of facilities in the Istanbul province was taken with the goal of comparing QC in different types of facilities. The Uganda study compared intervention (DISH) and non-intervention areas (non-DISH), and the Zimbabwe study examined the overall QC in the universe of clinics receiving technical assistance from SEATS.

1.2 Choice of countries

In June 1998, USAID missions worldwide were informed of the QIQ initiative and were invited to participate in the field test. In each case, the local agency had a strong interest in quality of care, as well as the support of the local USAID mission for this study. The following countries were selected to participate in the QIQ field test: Ecuador, Morocco, Turkey, Uganda and Zimbabwe.

1.3 Short list of quality of care indicators and data collection instruments

Quality of care is a complex, multi-faceted issue, and there are literally hundreds of indicators that can be used to measure quality. Since the volume of data that can be generated in the name of meas-

[5] The MAQ is a USAID Office of Population initiative to **M**aximizing **A**ccess and **Q**uality in family planning and reproductive health services.

[6] Note: The field test is upcoming in a fifth country (Morocco) in the spring of 2000.

[7] Both the Uganda and Turkey field tests examined other reproductive health services and found that the instruments could easily be adapted for this purpose.

uring quality can be overwhelming, an initial decision was made to take a more pragmatic course and identify a "short list" of QC indicators. The underlying premise of this approach was that facilities performing well on key indicators would most likely perform well on similar indicators not measured by the instruments. In short, the short list would identify benchmark indicators.

Members of the CA community with a particular interest in quality of care and/or program evaluation were surveyed to identify those indicators of quality that they felt most directly affected quality **outcomes** in terms of client behavior. Three groups reached a consensus as to which indicators should be retained for the short list: MEASURE *Evaluation* frontline staff attending the May 1998 staff meeting, participants at the May 1998 meeting of the MAQ initiative, and members of the M&E subcommittee of the MAQ. The results are shown below in Table 1.1.

The short list of indicators can be measured by using three methods of data collection:

- **facility audit** with selected questions to the program manager
- **observation** of client-provider interactions and selected clinical procedures
- **exit interviews** with clients departing from the facility (and previously observed)

Developed by members of the M&E subcommittee of the MAQ, local researchers, and MEASURE *Evaluation* staff, the three instruments were field tested in the fall of 1998. The instruments were subsequently revised to reflect the experience of the QIQ field test, which was completed in four countries (Ecuador, Turkey, Uganda and Zimbabwe) by the spring of 1999.

Jointly, the three methods of data collection measure all of the short list indicators, in addition to other key variables. Each instrument contributes a different perspective on quality of care in a given set of facilities. The **facility audit** determines the readiness of each facility, based on information about types of services provided, types and amounts of supplies in stock, the condition of the facility, and the types of records kept. The observation provides information about QC from the perspective of a trained clinician. Here, a person with clinical training follows the client and evaluates the performance of the provider during counseling and clinical sessions, assessing technical competence in counseling and clinical procedures (including some items the client might not be able to judge). The client exit interview collects information about QC from the client's perspective: her recall of provider actions and her overall experience at the facility. This instrument is of particular importance because it is the only one that provides information from the client's perspective.

Because each instrument provides a unique viewpoint of the QC delivered at a facility, it is advised that all three instruments be used to obtain the most comprehensive picture of quality. Although more than one instrument may measure a particular item (as shown in Table 1.1), the facility audit is the only instrument that measures the readiness of the facility to provide services. Technical competence in counseling and clinical procedures may only be assessed through the observation of client-provider interaction, and the client exit interview is the only instrument that provides information from the client's perspective. It is useful to look at QC from a variety of perspectives, as the following example illustrates. Suppose that due to lack of facility readiness (e.g., a facility has frequent stock-outs of a given method), and through no fault of the provider, a client does not receive her method of choice. The provider could be found at fault for not supplying the client's method of choice if information about the availability of contraceptive supplies at the facility is not taken into consideration. While some organizations may not opt to use all three instruments (as was the case in the QIQ field test), it is important to recognize that using all three produces a more complete overall assessment of QC.

Table 1.1 below presents the short list of QC indicators matched to the instruments that can be used to measure each indicator. This list served to guide the development of the instruments. The indicators, as well as the three methods of data collection, are similar to those used in the Situation Analysis (Miller et al., 1997). However, in contrast to the Situation Analysis which is a more

comprehensive set of instruments, the QIQ is intended to be sufficiently concise and practical that it can be repeated every 1-2 years to track progress in improving quality of care in a given set of facilities.

1.4 Sampling issues

Because the objectives of the monitoring exercise differed by country, the sampling strategy (selection of facilities) was not uniform across the field test countries. Two countries used a census of a given type of facility (Ecuador and Zimbabwe), and a third (Turkey) took a census of facilities in a given metropolitan area. In Uganda, intervention (DISH) and non-intervention (non-DISH) clinics were compared, and in Morocco (upcoming), a sample of clinics representative of the Ministry of Health system will be used. The specific sampling strategies used in each country are detailed in the country reports that follow. In addition, several key sampling scenarios have been identified and are explained in detail in the sampling guidelines section of the *Quick Investigation of Quality (QIQ): A User's Guide for Monitoring Quality of Care*. These key sampling scenarios are

- **Scenario 1** The Ministry of Health in Country X (or other large national program) is interested in monitoring the quality of family planning services at a network of facilities.

- **Scenario 2** A program with a limited number of facilities (e.g., less than 50) is interested in monitoring the quality of family planning services in its network of facilities.

- **Scenario 3** A program is interested in comparing intervention to non-intervention areas.

- **Scenario 4** A low-contraceptive prevalence country would like to monitor the quality of services under any of the above scenarios.

While a few of the above mentioned scenarios are self-explanatory, most require consultation with a trained statistician who is familiar with the concepts of sampling.

1.5 Uses of QIQ

The QIQ methodology has multiple uses. Local needs and available resources will dictate the most appropriate use in a given setting. In the field test, the methodology served the following purposes:

- To describe the strengths and weaknesses of a network of facilities on selected QC indicators (all countries)
- To contrast quality of care in intervention and non-intervention areas (Uganda)
- To compare the performance of two types of service providers on key indicators (Ecuador)
- To compare QC in different types of facilities (Turkey)
- To compare a given set of facilities over time (planned for Turkey)
- To monitor QC using a sample representative of the family planning (FP) facilities in a country (planned for Morocco)

Although the current protocol was initially developed for family planning, the instruments may be adapted for use in other areas of reproductive health as discussed below.

1.6 Expansion of QIQ methodology beyond family planning

In the field test, it was found that the instruments could easily be adapted for other areas of reproductive health and used in tandem with the FP instruments. Countries with relatively low FP client flow are particularly well suited for this activity because the fieldwork can easily be combined; it keeps the field workers occupied, and it drives down cost relative to the amount of information collected. However, collecting data for both FP and other reproductive health (RH) services is more cumbersome and may not be possible in areas where there is high client flow. In Uganda, the instruments were adapted to measure quality of antenatal services, and in Turkey they were adapted to assess post-abortion and postpartum care. In some cases the indicators for these other services could be measured with the same items as on the FP instruments; in others, items were changed to better capture the quality issues surrounding those services.

Table 1.1 Short list of QC indicators matched QC instruments

Indicator Number	Indicator	Client Exit Interview	Observation	Facility Audit
	PROVIDER			
I-1	Demonstrates good counseling skills (composite)	✔	✔	
I-2	• Assures client of confidentiality		✔	
I-3	• Asks client about reproductive intentions (more children? when?)	✔	✔	
I-4	• Discusses with client which method she would prefer	✔	✔	
I-5	• Mentions HIV/AIDS (initiates or responds)	✔	✔	
I-6	• Discusses dual method use	✔	✔	
I-7	• Treats client with respect/courtesy	✔	✔	
I-8	• Tailors key information to the particular needs of the specific client	✔		
I-9	• Gives accurate information on the method accepted (how to use, side effects, complications)	✔	✔	
I-10	• Gives instructions on when to return	✔	✔	
I-11	Follows infection control procedures outlined in guidelines		✔	
I-12	Recognizes/identifies contraindication consistent with guidelines		✔	
I-13	Performs clinical procedures according to guidelines		✔	
	STAFF (other than provider)			
I-14	Treat clients with dignity and respect	✔		
	CLIENT			
I-15	Participates actively in discussion and selection of method (is "empowered")	✔	✔	
I-16	Receives her method of choice	✔	✔	
I-17	Client believes the provider will keep her information confidential	✔		
	FACILITY			
I-18	Has all (approved) methods available; no stockouts			✔
I-19	Has basic items needed for delivery of methods available through SDP (sterilizing equipment, gloves, blood pressure cuff, specula, adequate lighting, water)			✔
I-20	Offers privacy for pelvic exam/IUD insertion (no one can see)	✔	✔	✔
I-21	Has mechanisms to make programmatic changes based on client feedback			✔

Indicator Number	Indicator	Client Exit Interview	Observation	Facility Audit
I-22	Has received a supervisory visit in past __ months			✔
I-23	Adequate storage of contraceptives and medicines (away from water, heat, direct sunlight) is on premises			✔
I-24	Has state-of-the-art clinical guidelines			✔
I-25	Waiting time is acceptable	✔		✔

Chapter II

Ecuador Family Planning: Quick Investigation of Quality

Amparo Gordillo-Tobar

Ernesto Pinto

2. Ecuador Family Planning: Quick Investigation of Quality

2.1 Overview of the field test in Ecuador[8]

2.1.1 Importance of the field test in the context of Ecuador

In Latin America, fertility rates have been in continuous decline since family planning (FP) programs were first introduced in the 1960s. In the 1970s the programs were expanded, and by the 1980s they had become firmly established. Ecuador family planning programs began at the end of the 1960s, and trends in fertility rates have decreased there as in other Latin American countries. Ecuador reported a total fertility rate (TFR) of 3.5 for the period of 1990-1995,[9] and a TFR of 2.8 in 1998.[10] In terms of contraceptive use, Ecuador reported a contraceptive prevalence of 57% in 1994.[11]

Family planning (FP) services in Ecuador are offered by the Ministry of Health, non-governmental organizations (NGOs), and other private providers. NGOs make a special effort to offer high quality services in order to remain competitive with Ministry of Health facilities, which offer services free of charge. The *Asociación Pro-bienestar de la Familia Ecuatoriana (APROFE)*[12] and *Centro Médico de Orientación y Planificación Familiar (CEMOPLAF)*[13] are two NGOs in Ecuador that are interested in increasing and maintaining quality of their services to better serve the population. This report focuses on the activities of these two NGOs that, because of their interest in quality, were enthusiastic to participate in the multi-country field test.

In Ecuador three data collection techniques were used to assess quality of care:

- audit of the health facility
- observation of the FP client-provider interaction
- exit interviews with FP clients

In this analysis, the facility audit instrument covers infrastructure and availability of equipment and supplies for the effective delivery of contraceptive methods. The analysis of data from the observation of the client-provider interaction focuses on comparing two categories of providers (physicians and *obstetrices*[14]/nurses) in terms of counseling skills and clinical competence. Finally, the client exit interview provides feedback on the clinic experience from the client perspective. Analysis of data from the client exit interview examines perceptions of quality based on client age.

APROFE and CEMOPLAF have a vested interest in establishing a means to regularly monitor and evaluate quality of care to ensure their continued success. Participation in the field tests provided data which will help them with their continuing effort to monitor quality.

2.1.2 Adaptations of instruments to local needs

The instruments were translated into Spanish. Additionally, several adjustments were made to the standard instruments which facilitated implementation in the context of these NGOs in Ecuador:

- In the client-provider observation, the time that the consultation ended was recorded in order to measure the length of the client-provider interaction.

[8] The authors would like to acknowledge the assistance of Clayton Williams in editing this report.

[9] Pan American Health Organization, Division of Health and Human Development. *Health Situation in theAmericas. Basic Indicators* 1998.

[10] International Data Base (IDB); http://www/census.gov/ipc/www/idbnew.html

[11] ENDEMAIN, 1994

[12] Association Pro-Ecuadorian Family

[13] Medical Center for Family Planning

[14] *Obstetrices* are health professionals trained at the graduate level (non-MD) to address women's reproductive health issues, including the attending of births.

- In the client exit interview, the greeting was modified depending on the specific local environment (i.e., highlands or coastal regions).
- In the facility audit, the names of several locally available injectables were included. In addition, natural family planning (NFP) was excluded from the instrument, since it was not considered a modern method that required specific supplies from the health center. Because there was a question about whether all of the facilities had counseling offices, this information was collected using the facility audit.

2.2 Sampling

2.2.1 Definition of the sampling framework

The facilities of APROFE and CEMOPLAF are located exclusively in urban areas. All health facilities from both NGOs were included in the fieldtest (21 and 22, respectively), for a total of 43 urban facilities (i.e., the universe of facilities for the two institutions). Data collection was conducted during a single day at each clinic, and an attempt was made to observe and interview all FP clients who attended the facility that day, except for the exceptions noted below.

Health facilities varied in size from outpatient health facilities with a single consultation room, to fully equipped surgical health facilities with hospitalization capability and several outpatient rooms. In general, smaller health facilities were located in small cities while the larger facilities were located in Quito and Guayaquil.

The sampling strategy originally required that the data collection team cover all consultation rooms of a given facility over one day (i.e., a "take all" strategy). However, because some facilities have more than two consultation rooms, and because the maximum number of rooms the team could cover was two, data collection in larger centers required more than one day in order to cover all consultation rooms. This strategy was employed in order to avoid having to increase the size of the team (and hence increase the cost of the study and affect the reliability of the data). Therefore, in clinics with only one or two family planning consultation rooms, data collection was completed in one day. And in high volume facilities, the study team remained for two days, covering, for example, two exam rooms one day and two different rooms on the second day. This was done with the assumption that client flow on the second day of data collection would be equivalent to the client flow on the first.

2.2.2 Procedures for selecting clients within facilities

Family planning clients had to be identified as such in each given facility because facilities participating in the field test offer other services in addition to FP. The team identified the FP clients among other clients in the waiting area with help from the administrative assistant at each clinic. The professionals providing FP consultations were physicians and *obstetrices*/nurses.

2.2.3 Linkage of the instruments

Identifiers used for linking purposes were province, city, health center and client number.

Each province, city, and health center had identifier numbers (provided by the census) which were written on the provider-client observation, exit interview and facility audit forms previous to the field exercise. Once the field exercise began, numbered labels were used in order to link the provider-client observation and exit interview forms for a given client. Upon completion of the client-provider observation, a label with numbers matching that client's observation data was given to the client. This label was then given to the interviewer to attach to the interview form, thus, linking the instruments.

2.3 Fieldwork

2.3.1 Organization of teams

Two teams were used to collect data in Ecuador. Each team had three members: a female physician who acted as the observer (also the team leader) and two female social workers who were interviewers. The physician observers were ultimately responsible for completing the facility audit, but interviewers also assisted with this activity.

2.3.2 Recruitment and training of interviewers and observers

Team members were recruited by the country coordinator. As it turned out, the interviewers had prior experience with conducting exit interviews, but none of the observers had had previous experience with observation instruments.

Training of field personnel took five days: four days for training on the objectives of the study and use of the instruments, and one day for the pilot test. Training activities consisted of the provision of general information on the project, discussion of the instruments, role-playing activities, and a review of key terminology. Pilot testing offered practice with the instruments, which helped effectively prepare the team for situations they would later encounter during the fieldwork. Following the pilot test, a second review of the instruments was conducted, including a detailed discussion of questions generated during the exercise.

2.3.3 Supervision and control of data quality

Throughout the six weeks of fieldwork, the country coordinator monitored activities and reviewed the data collected. Supervision took the form of: (1) unannounced visits and phone calls to the health facilities to monitor the quality of the data collection process; and (2) frequent reviews of completed instruments to assure completeness of information.

2.3.4 Timing of fieldwork activities

Data collection was carried out during a six-week period in November and December of 1998 (with the goal of finishing before Christmas). The schedule for data collection was determined in relation to the hours of operation and location of each clinic. Data entry began during the data collection period, and initial data entry was complete by late January 1999.

2.3.5 Difficulties encountered

On the whole, the data collection process went very smoothly. The exception is that before data collection began, one of the trained interviewers left the project and had to be replaced. This required an additional training session for the new interviewer.

2.4 Results of the QC instruments field test in Ecuador

2.4.1 Overview

The following analysis of the quality of care (QC) indicators in Ecuador is based on data collected using three instruments: facility audit, client-provider observation, and the client exit interview. The study was carried out in all 43 facilities operated by APROFE and CEMOPLAF, and 584 FP clients who visited the facilities were included.

In this analysis, the facility audit covers infrastructure and availability of equipment and supplies for the effective delivery of contraceptive methods. The analysis of data from the observation of the client-provider interaction focuses on comparing the performance between physicians and *obstetrices*/nurses in terms of counseling skills and clinical competence. Finally, the client exit interview provides feedback on the perception of quality of care based on the perspective of the client in terms of client age. The final section explores programmatic implications, methodological problems, and presents the formats used to discuss results at the local level.

2.4.2 Facility audit

The data from the facility audit are presented first on their general characteristics and then according to whether the facility offered surgical and outpatient services, or outpatient services exclusively. The data in terms of services offered are presented in three categories: (1) infrastructure, equipment, medical supplies, (2) availability of IEC materials, and (3) waiting time and management conditions.

General characteristics of the facilities

Few of the 43 facilities varied in terms of services provided. The majority provided outpatient services only (88%), while the others (12%) provided FP surgical procedures in addition to outpatient services.[15] FP counselors' offices were present in 40 health facilities (93%). Although the primary

[15] Facilities that offer female sterilization using local anesthetic were considered to offer surgical procedures.

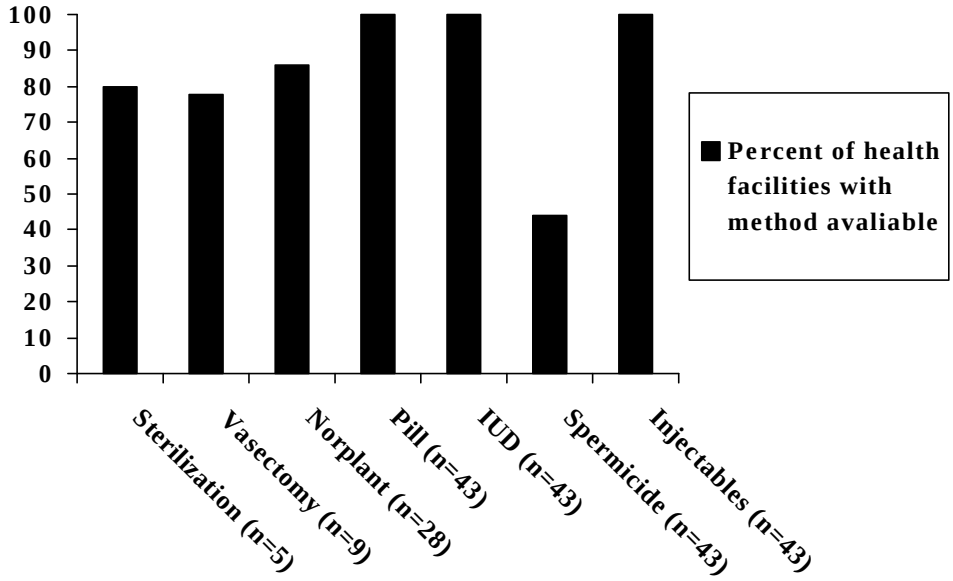
objective of the 43 health facilities was to provide FP services, most (70%) also offered additional health services for the family (data not shown).[16]

The facilities also differed in terms of availability of contraceptive methods. Figure 2.1 shows the percentage of facilities which had the method available on the day of the QIQ (Quick Investigation of Quality) team visit (among facilities where the method was expected to be available).

Resupply methods, such as pills, condoms, IUDs and injectables, were available in all health facilities; however, spermicide was available in only 44% of facilities. The availability of surgical procedures varied. Of the five health facilities where female sterilization[17] was expected to be available, it was actually available in four (80%). Vasectomy was expected to be available in nine health facilities; however, just seven of the nine health facilities (78%) reported having the service available. Norplant was purportedly available in 28 health facilities; in fact, 24 of the 28 health facilities (86%) had it in stock.

Several reasons were offered for the non-availability of long-term methods in these clinics, such as the absence of trained personnel for vasectomy and Norplant procedures. In one case, the health facility (originally designed to offer all surgical procedures) determined that it was not cost-effective to offer surgical methods. The NGO's policy is to offer surgical services only if the necessary maintenance costs can be justified. It should be noted that the providers at the facility in question could refer clients to another facility for surgical procedures.

Figure 2.1
Availability of contraceptive methods



[16] Other services included maternal and child services, internal medicine, and clinical laboratory services.
[17] Tubal ligation with epidural anesthetic

Both organizations had a referral system to provide surgical procedures to clients in need of such services. Outpatient clinics could refer clients to other health facilities offering the service, both within and outside their own network.

Infrastructure, equipment, and medical supplies

Elements of the physical infrastructure considered essential for delivering quality services include sufficient storage facilities for contraceptives, a source for clean water, waiting area sheltered from sun and rain, privacy for pelvic exams/IUD insertions, and a working light source.

The results in Table 2.1 show that these elements were present in almost all facilities, with little difference between those facilities that offer resupply methods only and those that provide both outpatient and surgical methods.

International standards define certain equipment as essential for the provision of quality services. The availability of essential equipment was analyzed for three contraceptive methods: pill, IUD and injectables.

Table 2.1 Facility conditions by type of methods offered (percent)

Condition of Facility	Facilities Offering Resupply Methods Only (Outpatient)	Facilities Offering Surgical and Outpatient[1]	Total
	n=38	**n=5**	**n=43**
Adequate storage facilities for contraceptives	100.0	100.0	100.0
Source of clean water	100.0	100.0	100.0
Waiting area sheltered from sun and rain	97.4	100.0	97.7
Area affording privacy for pelvic exams/IUD insertion	100.0	100.0	100.0
Working source of light	100.0	100.0[2]	100.0

[1] Facilities that offer female sterilization using local anesthetic
[2] n=4, no information was available for one facility

Table 2.2 Essential equipment for the provision of selected procedures

Procedure	Essential Equipment	Percent of Facilities with Equipment (n=43)
Pill		
	Scale	100.0
	Blood pressure gauge	100.0
IUD		
	Flashlight	100.0
	Scissors	97.7
	Specula	100.0
	Tenacula	100.0
	Uterine sound	100.0
	Sterilizers	100.0
	Iodine	86.0
	Antiseptic	100.0
	Chlorine solution	100.0
	Sterile gloves	97.7
	Disposal containers	100.0
	Instrument trays	55.8
	Sterile swabs	93.0
	Examination couch or table	100.0
	Procedure area for IUD, injectables or NORPLANT	95.3
Injectables		
	Sterile needles and syringes	81.4
	Sterilizers	100.0
	Antiseptics	100.0
	Chlorine solution	100.0
	Sterile gloves	97.9
	Disposal containers	100.0
	Sharps container for used sharps	60.5
	Plastic containers for decontamination	67.4
	Instrument trays	90.7
	Swab container with sterile swabs	93.0
	Procedure area for IUD, injectables, or NORPLANT	95.3

The vast majority of equipment was available at all clinics that provide the selected methods (Table 2.2).

- Pill: The provision of the pill requires only two pieces of equipment, a weight scale and blood pressure gauge, both of which were present in every health facility.
- IUD: Fifteen items were considered essential, and 86% of the facilities had all of these items available at the time of the audit. Equipment available in less than 100% of clinics included scissors (98%) and instrument trays (90.7%). Similarly, supplies available in less than 100% were iodine (86%), sterile gloves (98%) and sterile swabs (93%).

- Injectables: The essential items for the service delivery of injectables were available in fewer of the clinics than for the IUD or pill, however eight of the eleven pieces of equipment were available in at least 90% of the clinics. Items available in less than 90% of the facilities included sterile needles and syringes (81%), sharp containers for used sharps/scissors (61%), and plastic containers for decontamination (67%). Other supplies considered essential for administering injections were generally available: sterile gloves (98%), antiseptic and chlorine solutions (100%), disposable containers for contaminated waste/supplies (100%), and swab containers with sterile swabs or sterile gauze (93%).

Availability of IEC materials

Information, education and communication (IEC) materials for FP were present in over 50% of the health facilities. Brochures/pamphlets, information sheets, and job aids were found at every health facility. Flip charts were present in 60% of health facilities with surgical procedures and 50% of health facilities with outpatient services only. Signs and posters announcing FP services were visible in all facilities offering surgical procedures, while signs and posters announcing FP services were visible in 97% and 82% of outpatient facilities respectively (data not shown).

There was a counselor's office in every health facility with surgical procedures and in 88% of the facilities with outpatient services only. IEC materials are primarily kept in the counselors' offices.

Waiting time and management conditions

First-time clients waited an average of 50 minutes at facilities that provide surgical and outpatient procedures, as well as facilities that provide outpatient services only. Forty-two percent of clients waited up to 30 minutes before seeing the health provider. Thirty-four percent waited between 31 to 60 minutes, and less than 24% waited more than one hour (Table 2.3).

All but one facility had mechanisms to obtain both client and provider feedback. The most popular mechanism to obtain provider opinions was staff meetings, used by 80% of the facilities with surgical procedures, and at all outpatient facilities. Client suggestion boxes were used by all health facilities with surgical procedures and 53% with only outpatient services (data not shown). It was encouraging that over 90% of facilities reported making changes based on client and provider suggestions (e.g., changes were made on schedules for the delivery of services, and ways to improve health care education, among others).

Information on supervisory visits was collected for 35 out of 43 health facilities. In both types of facilities, approximately half (49%) reported a supervisory visit in the past six months.

Table 2.3 Waiting time by type of methods provided

	% Outpatient Only	% Outpatient and Surgical	Total
	n=38	n=5	n=43
Waiting Time[1]			
Less than 30 min.	45.5	20.0	42.1
31-60 min.	30.3	60.0	34.2
More than 60 min.	24.2	20.0	23.7
Mean waiting time (S.D)	52.2 (62.2)	56.0 (23.0)	52.7 (58.3)

[1] Outpatient only n=33, Outpatient and surgical n=5
[2] Outpatient only n=31, Outpatient and surgical n=4

In summary, both types of health facilities were well equipped to provide reversible contraceptive methods in terms of infrastructure, equipment, supplies and IEC materials. There were no stock-outs of supplies for reversible contraceptive methods; however, a few items were missing. In addition, waiting times for first-time clients could be improved. The re-establishment of regular supervisory visits would help solve these problems.

2.4.3 Client-provider observation

The analysis of the client-provider observation focuses on comparing quality of care on counseling skills and clinical procedures for the two categories of provider: physicians alone are one category, and *obstetrices* and nurses together make up the other category. The comparison is based on data gathered during observation of counseling sessions and clinical procedures.

General information regarding providers

Both physicians and *obstetrices*/nurses provide family planning consultations in APROFE and CEMOPLAF facilities. Information from *obstetrices*/nurses was collected together in order to facilitate the comparison with physicians. Forty-five percent of the providers were physicians and 55% *obstetrices* and nurses. The provider was female in 90% of observed client-provider interactions, and 97% of the time the session was conducted in Spanish. The data show that physicians tend to spend more time with new (versus follow-up) clients.

Counseling

In Ecuador's health facilities, health counselors with degrees in social work, psychology or health education meet with FP clients before the clients meet with the clinical service provider. New FP clients in particular are targeted for this type of session. Given this set-up, information intended to increase knowledge or empowerment of the client with respect to method preference and selection is generally discussed before the client sees the provider. Therefore, the analysis of the observation of the client-provider interaction in terms of the counseling session is limited to those elements considered essential to discuss given that the client has met with a health counselor.

General information (such as current age of client) is gathered by other staff before the patient gets to the provider as a way to maximize the use of provider's time. Out of respect for client privacy, marital status information is not routinely collected as a matter of policy on the part of the NGOs.

The quality of counseling skills was assessed using seven variables or "actions": whether the provider asks open-ended question, encourages client to ask questions, treats clients with respect, sees client in private, discusses return visit, asks client her concerns about method and uses client records.[18]

Overall, the providers scored well on these seven actions. They performed six of the seven actions in at least 90% of the cases; and the seventh ("asking client about her concerns for the method") in 83% of the cases.

On three of the seven variables, performance differed significantly by type of provider; these included (1) asks open ended questions, (2) encourages client to ask questions, and (3) asks client her concern about the method (Table 2.4). There was a small but statistically significant difference in the mean number of actions (of the seven total) that the two types of providers were observed to perform: 6.7 for physicians versus 6.5 for *obstetrices*/nurses.

[18] Use of visual aids was not included due to the understanding that most of visual aids are in the counselor's office, not the provider office.

Table 2.4 Provider actions during counseling sessions by type of provider

	Percent of Observations Where Action Is Present		
For all clients	**Total**	**Physician**	***Obstetriz*/nurse**
Provider:	**n=584**	**n=276**	**n=308**
Asks open-ended questions*	93.7	96.7	90.9
Encourages client to ask questions**	89.7	94.2	85.7
Treats client with respect	99.7	99.6	99.7
Sees client in private	99.3	99.3	99.4
Discusses return visit	94.2	93.8	94.5
Asks client her concerns about method**	82.7	88.4	77.6
Uses a client record	98.1	98.2	98.1
Provider Action Index Mean Score: All Clients [1] (range 0-7)*	**6.6 / 7**	**6.7 / 7**	**6.5 / 7**
For new clients only	**Total**	**Physician**	***Obstetriz*/nurse**
Provider:	**n=178**	**n=91**	**n=87**
Explains how to use selected method	83.1	87.9	78.2
Explains side effects of method selected	69.7	73.6	65.5
Determines client's reason for method selection (n=66)	99.2	100.0	98.5
Explains that method does not protect against STD/AIDS (n=160)	20.0	19.8	20.3
Encourages use of condoms as a second method (n=160)	18.1	17.3	19.0

[1] The *Provider Action Index: All Clients* is comprised of the preceding 7 items. A "yes" to each item counts as a score of one toward a total possible score of 7

*p-value < .05

** p-value < .001

The content of provider counseling sessions is expected to differ for new and follow-up clients. Providers' familiarity with clients due to previous visits or clinical chart information tends to reduce the number of questions.

The second panel of Table 2.4 shows the performance of both types of providers on items considered particularly important to new clients. Almost all determined the reason the client selected the method she did. In contrast, performance was slightly lower on "explains how to use the selected method" (83%) and "explains side effects of the method selected" (70%). Again, physicians were somewhat more likely to cover these topics than *obstetrices*/nurses. By contrast, both types of providers scored very low on "explaining that the method does not protect against STD/AIDS" or "encourages use of condoms as a second method" (topics covered in 20% or less of the counseling sessions). Given that Ecuador has relatively low levels of HIV prevalence, the providers tend not to discuss this topic on a regular basis.

Table 2.5 Information discussed between new client and provider in counseling session by type of provider

	Percent "yes"		
For new clients	**Total**	**Physician**	***Obstetriz*/nurse**
Provider and client discussed:	**n=178**	**n=91**	**n=87**
Number of living children[1]	58.5	58.2	58.6
Desire for additional children[1]	48.3	48.4	48.2
Timing of next child	38.2	40.7	35.6
Current pregnancy status	43.3	42.5	44.0
History of pregnancy complications	39.9	40.7	39.1
Partner's attitudes toward FP	29.8	26.4	33.3
Information Exchange Index Mean Score (range: 0-5)	**2.3**	**2.3**	**2.3**

[1] A "yes" for either or both of these variables counts as a "one" toward the *Information Exchange Index.*

With regard to new clients, providers are expected to ask about certain demographic characteristics and reproductive intentions during the client-provider counseling session (even if the client previously gave this information to the counselor). These include: information on number of living children, desire of additional children, timing of next child, current pregnancy status, history or pregnancy complications, and partner's attitudes toward FP (Table 2.5).

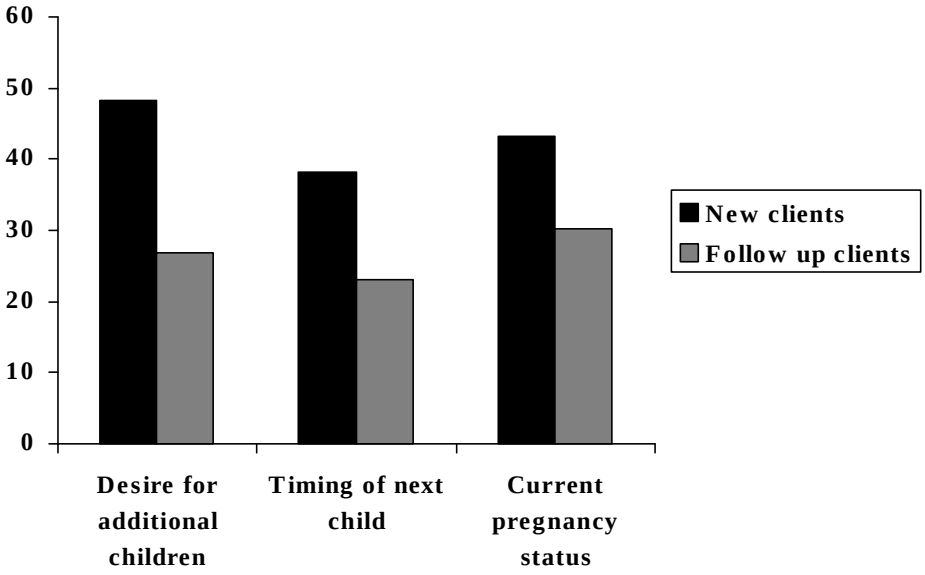
Each is an essential component of the understanding of client needs, identification of appropriate method, and identification of ancillary risks. Information such as number of living children, desire for additional children, and timing of next child are key elements in determining the appropriate type of FP method to prescribe/dispense. However, information about history of pregnancy complications would not need to be introduced into the discussion with a client with little or no history of pregnancy or use of contraceptive methods. In the conservative environment of Ecuador, it was deemed important to consider the partner's attitudes toward FP as important element in the choice and continuation of a FP method.

Providers were far less consistent in covering these topics than the seven actions described in Table 2.4. The percentage of cases in which these questions were asked ranged from 30% (partner's attitude) to 59% (number of living children). There was little difference between physicians and *obstetrices*/nurses in this regard, the mean scores on the information exchange index being 2.3 for both (Table 2.5). It should be noted that 40 of the facilities had a counselor who may have included more information on the client record.

Table 2.6 Information discussed between follow up clients and provider in counseling session by type of provider

	Percent "yes"		
For follow up clients	**Total**	**Physician**	***Obstetriz*/nurse**
Provider and client discussed:	**n=391**	**n=178**	**n=213**
Desire for additional children	26.9	26.4	27.2
Timing of next child	23.0	23.0	23.0
Current pregnancy status	30.2	34.9	26.3

Figure 2.2
Information discussed between providers and clients during the counseling session



The data in table 2.6 show similar results for both types of provider when the analysis is based on follow-up clients only. One possible explanation for the relatively low percentages is that the provider may remember the client from a previous visit or the information may have been contained on the client record. There is however a notable difference between the information discussed in the counseling session with new versus follow-up clients on the topics of desire for additional children, timing of next child and current pregnancy status (Figure 2.2).

Duration of counseling session

Providers of both types tended to spend less than 15 minutes with the client, as shown in Figure 2.3. In addition, 22% of the visits on average ranged from 16 to 30 minutes, and only 4% were 31 minutes or more in duration.

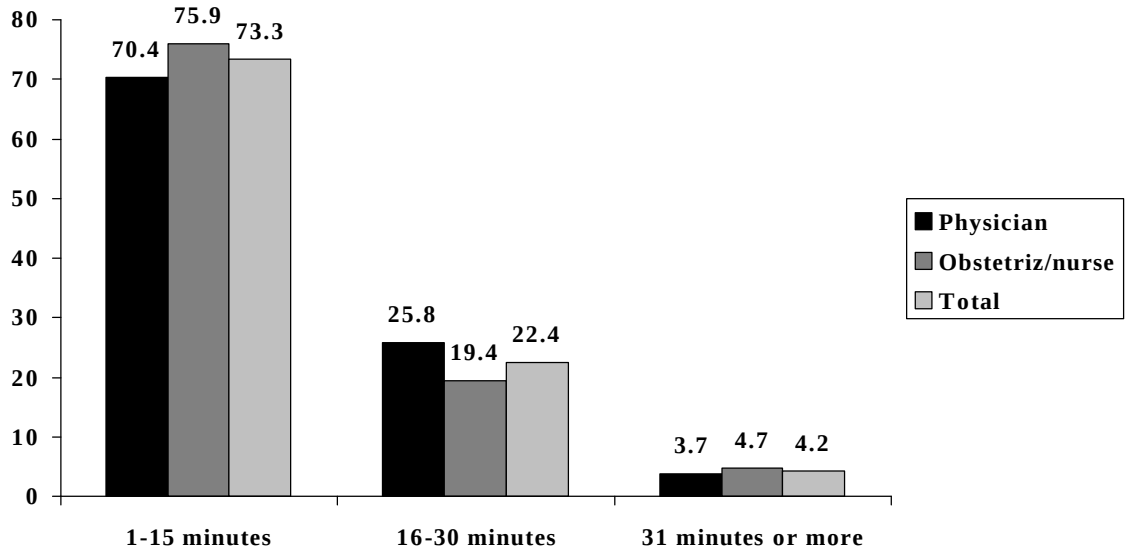
HIV/AIDS information

Information related to sexual behavior and HIV/AIDS is generally not discussed in Ecuador between client and provider. Even though efforts are being made to increase this type of dialogue in the two NGOs, social taboos and lack of recognition of HIV/AIDS make these discussions difficult to initiate. Therefore, providers tend not to inquire about multiple sexual partners and STD/HIV/AIDS (20% or less for both providers—data not shown). According to managers, this type of information is generally only addressed in particular cases and not with all clients.

Preferred method

Several studies have demonstrated that the client who receives her preferred method is more likely to be satisfied.[19] In the interactions observed between new clients and providers in Ecuador's NGOs, 74% of clients received their preferred method. Over 80% of clients who wanted the IUD, pill, spermicide and condom received their

Figure 2.3
Duration of consultation by type of provider



[19] Pariani et al. 1991. "Does Contraceptive Choice Make a Difference to Contraceptive Use? Evidence from East Java." *Studies in Family Planning* 22 (6):384-390.

Table 2.7 Preferred method received and reasons for not receiving preferred method among new clients with a preference for a method

New clients	Percent n=178
Received preferred method	74.2
Percent receiving preferred method by method:	
Pill (n=31)	80.6
IUD (n=75)	81.3
Injectable (n=39)	74.4
Norplant (n=6)	16.7
Sterilization (n=5)	40.0
Condom (n=7)	100.0
Spermicide (n=2)	100.0
Rhythm / periodic abstinence (n=2)	50.0
Percent distribution on reasons for not receiving preferred method:	**n=35**
Not available at clinic that day	--
Provider recommended another method	20.0
Changed mind after listening to provider	17.0
Client did not make choice at time of session	5.7
Not available at all	2.9
Not available, referred to another source or clinic	2.9
Not appropriate method (contraindications)	2.9
Other	45.7
Not clear why	2.9

preferred method. Clients who wanted the injectable received their preferred method in 74% of the cases, and those who preferred Norplant received it in just 17% of the cases. Sterilization was prescribed to less than half (40%) of the clients who came to the clinic hoping to get it (Table 2.7). However, it is not clear in the observation instrument whether the client was referred outside the NGO's network for sterilization. Overall, 26% of new clients that had a preferred method did not receive that method.

Among the 20% who did not receive their preferred method, the primary reasons given were that the provider recommended another method (20%) and that the client changed her mind after listening to provider (17%). Reasons such as "not available at clinic that day," "not available at all," and "not available and referred to another source or clinic" each represented less than three percent of the total. Despite the fact that the response "client did not make choice at time of session" was given 6% of the time, the anticipated responses did not cover all responses given. Forty-six percent of the clients mentioned "other reasons" (Table 2.7).

Correct actions observed on the application of contraceptive methods

For each contraceptive method, there were specific actions that the provider was expected to perform: two actions in the case of the IUD and injectable, four in the case of the pill.[20] Compliance with all four actions was lowest for the pill, though providers performed at least three of the four actions in the majority of cases. Compliance was higher for the IUD (both actions were observed in 62% of the cases). It was highest for the

[20] IUD, injectable and Norplant actions: check blood pressure, ask if client is pregnant. Pill actions: check blood pressure, ask if client is pregnant, ask if client smokes, ask if client is breastfeeding

injectable (with both actions observed in 81% of cases). For each method, the percent completing all actions was slightly higher for physicians than for *obstetrices*/nurses.

Each contraceptive method has a specific number of necessary provider actions associated with optimal provider performance (in terms of the distribution of the method). The data in table 2.8 on correct actions taken, by method, indicate that for over 80% of consultations, all necessary actions were observed for injectables, Norplant and rhythm (data not shown). However, the number of correct actions taken by providers for the pill and IUD deviate from that pattern. Twenty-five percent of physician interactions included four of four necessary actions for the pill, while none of the *obstetriz*/nurse interactions included all required actions. However, the majority of both physician and *obstetriz*/nurse interactions included three of four required actions for the pill (63% and 52%, respectively). In the same pattern, physicians scored higher in IUD and injectable practice than did *obstetrices*/nurses (70 and 84%, respectively).

Clinical observation

The observation of clinical procedures was a part of the larger observation of client-provider interaction. This part of the study included direct observation of three types of clinical procedures: injectables, pelvic exams and IUD insertions. Both types of providers demonstrated a high level of compliance with recommended clinical procedures for the three procedures, with one exception: washing hands before each procedure (Tables 2.9, 2.10, 2.11). Although hand washing should occur in 100% of the cases, in practice it was done in only 52 to 72% of the cases. There was little variation between types of providers on these measures, although during pelvic exams physicians were slightly more likely than *obstetrices*/nurses to ask clients to take slow deep breaths and relax all muscles. Similarly, with regard to IUD insertions, physicians were more likely than *obstetrices* to ask the client to wait/rest for at least 15 minutes after insertion, and to wipe contaminated surfaces with disinfectant. However, in debriefings afterwards, clinical personnel questioned two indicators as useful measures of quality: asking the IUD clients to wait after insertion (given differences in time constraints at different facilities) and conducting a speculum exam to check for RTI's (given that this information is too subjective to evaluate).

Table 2.8 Percent distribution of correct actions by type of provider for Pill, IUD, Injectables

Method	1 of 4	2 of 4	3 of 4	4 of 4
Pill (n=30)				
Physician		12.5	62.5	25.0
Obstetriz		23.8	52.4	--
Total		23.3	53.3	6.7
IUD (n=63)	1 of 2	2 of 2		
Physician	24.2	69.7		
Obstetriz	24.1	51.7		
Total	23.8	61.9		
Injectable (n=41)	1 of 2	2 of 2		
Physician	5.3	84.2		
Obstetriz	4.5	77.3		
Total	4.9	80.5		

Table 2.9 Compliance with recommended clinical procedures for injectables

	Percent of Sessions Where Provider:		
	Total	**Physician**	***Obstetriz*/ nurse**
For new clients	**n=25**	**n=15**	**n=10**
Reconfirm client's method choice	100.0	100.0	100.0
Ensure client is not pregnant	100.0	100.0	100.0
For continuing clients	**n=20**	**n=9**	**n=11**
Give injection at correct interval since last injection	100.0	100.0	100.0
For all clients (new and continuing)	**n=46**	**n=24**	**n=22**
Wash hands before giving injection	71.7	62.5	81.8
Stir/mix bottle before drawing dose	97.8	95.7	100.0
Clean and air dry injection site before injection	97.8	100.0	95.5
Draw back plunger before injection	97.8	95.8	100.0
Allow dose to self-disperse instead of massaging	95.7	95.8	95.5
Recap hypodermic needles using one-handed technique	100.0	100.0	100.0
Dispose of sharps in puncture-resistant containers	100.0	100.0	100.0
(If re-usable) Use newly reprocessed needle and syringe	93.5	87.5	100.0
(If gluteal) inject in upper outer quadrant	100.0	100.0	100.0

Table 2.10 Compliance with recommended clinical procedures for pelvic exams

	Percent of Sessions Where Provider:		
	Total	**Physician**	***Obstetriz*/ nurse**
For all clients (new and continuing)	**n=420**	**n=185**	**n=233**
Ensure client privacy	99.5	99.5	99.5
Prepare all instruments before exam	98.6	96.8	100
Wash hands before exam	58.1	58.6	58.2
Use sterilized or high-level disinfected instruments for each exam	98.3	96.8	99.5
Put on new or disinfected gloves before exam*	90.5	93.5	87.8
Inspect the external genitalia*	93.1	96.8	90.0
Ask the client to take slow, deep breaths and relax all muscles*	76.2	81.2	72.6
Inspect the cervix and vaginal mucosa	96.7	95.7	97.4
Perform bi-manual exam gently and without discomfort	89.3	88.5	89.9
Decontaminate all instruments after use	99.5	98.9	100
(If used) Explain speculum procedures to client* (n=415)	71.8	75.8	66.9

* p-value < .05

Table 2.11 Compliance with recommended clinical procedures for IUD Insertions

Provider Actions:	Percent of Sessions Where Provider:		
	Total	**Physician**	***Obstetriz*/ nurse**
For new clients	**n=58**	**n=29**	**n=30**
Reconfirms method choice	94.8	96.6	92.5
For all clients (new and continuing)	**n=60**	**n=30**	**n=30**
Ensure client privacy	98.3	100.0	96.6
Use sterilized or high-level disinfected instruments	100.0	100.0	100.0
Wash hands before putting on gloves	66.7	66.7	65.0
Use sterilized gloves	100.0	100.0	100.0
Conduct speculum exam to check for RTI/STDs before bi-manual exam	86.7	83.3	88.9
Conduct bi-manual pelvic exam	93.3	96.7	88.9
Visualize cervix during cleaning	98.3	100.0	96.6
Use tenaculum	100.0	100.0	100.0
Measure the uterus before IUD insertion	100.0	100.0	100.0
Use the no-touch technique for inserting the IUD	93.3	90.0	96.6
Wash hands after removing gloves	81.7	86.7	78.3
Ask client to wait/rest for at least 15 minutes after insertion	78.3	83.3	73.0
Wipe contaminated surfaces with disinfectant	85.0	93.3	78.2
Ensure that instruments and reusable gloves are decontaminated	98.3	100.0	96.6

Comparing the compliance with clinical guidelines for the three procedures, the mean scores are 85/90 for injectables, 75/80 for IUD procedures and 63/70 for pelvic examination (scores are based in number of necessary actions followed in each procedure: nine for injectables, eight for IUD procedures and seven for pelvic examination; each action counts for 10 points). The mean scores are higher for o*bstetrices*/nurses in terms of compliance for injectables, and higher for physicians for compliance on IUD procedures and pelvic examinations.

Infection control scores followed the same pattern as compliance with clinical guidelines on all three procedures. Success rates were 70% for injectables, 62% for IUD procedures and 54% for pelvic examination. Differential mean scores between providers demonstrated a higher mean score for *obstetrices*/nurses on injectables and infection control than for the other two procedures (Table 2.12).

In summary, there are few differences in quality of care by type of provider based on observation. Physicians scored slightly higher than *obstetrices*/nurses on several aspects of the client-provider interaction: encouraging clients to ask questions, asking open-ended questions, and asking the clients their concerns about the method. In addition, some other small, non-significant differences were observed in the behavior between physicians and *obstetrices*/nurses. Compliance with clinical guidelines for IUD insertions and pelvic exams was higher for physicians than *obstetrices*/ nurses, whereas the opposite was true for compliance with guidelines for injectables. Physicians also did better on infection control procedures for IUD insertions, pelvic examinations and injectables.

Table 2.12 Summary indicators of infection control actions and compliance with clinical guidelines

	Percent of Providers Performing the Number of Actions: (100=high, 0=low)		
	Injectables	**IUD**	**Pelvic Exam**
Compliance with clinical guidelines (number of actions)	**n=46**	**n=60**	**n=420**
4 or fewer	--	5.0	9.5
5	2.1	8.3	15.0
6	--	10.0	11.0
7 (Total for pelvic)	4.3	20.0	64.0
8 (Total for IUD)	30.4	68.3	
9 (Total for injectables)	63.0		
Mean score: compliance with clinical guidelines[1]	**(85.2/90)**	**(75.0/80)**	**(62.6/70)**
Physician	83.6	75.6	63.9
Obstetriz/nurse	87.1	74.3	61.4
Infection control scores	**n=46**	**n=60**	**n=420**
1	7.0	--	0.2
2	24.0	2.0	6.4
3 (Total for injectables)	70.0	3.3	39.1
4 (Total for pelvic)		18.3	54.1
5		15.0	
6 (Total for IUD)		61.7	
Mean score: infection control[2]	**(26.3/30)**	**(53.2/60)**	**(34.7/40)**
Physician	25.2	54.4	35.2
Obstetriz/nurse	27.6	51.8	34.3

[1] The "compliance with clinical guidelines score" evaluates the degree to which the provider complies with the clinical guidelines during the observation of IUD insertions, pelvic exams, and the provision of injectables (each action counts for 10 points).

[2] The "infection control score" evaluates the degree to which the provider complies with infection control procedures during the observation of IUD insertions, pelvic exams, and the provision of injectables (each action counts for 10 points).

2.4.4 Client exit interview

Presentation of the data collected in the client exit interview is based on clients' socio-demographic characteristics. However, the question of how client perceptions of quality differ according to age is of particular interest in this analysis.

Client characteristics

Clients receiving FP services at the two NGOs were predominantly middle income, Spanish speaking, Catholic and mestizo. The majority were between 20 and 29 years old, and 69% had visited the FP clinic previously. Similarly, 66% were married and 68% had one or two living children (the mean number being two). In addition, most of the clients reported having had some level of secondary schooling or higher (67%), while less than two percent of clients were illiterate (Table 2.13).

Table 2.13 Client characteristics

	Percent (n=584)
Client had visited this FP clinic before the day of the interview	69.3
Marital status:	
Married/ monogamous	66.3
Cohabiting (common-law marriage)	29.1
Single, never married	3.6
Divorced/separated/widowed	1.0
Age:	
15-19	8.6
20-29	56.7
30-49	34.7
Number of living children:	
0	5.5
1-2	67.6
3-4	22.3
5+	4.6
Mean number of children:	2.0
Highest education level completed:	
0 (no schooling)	1.4
Some level of primary	31.8
Some level of secondary	48.8
Higher than secondary	18.0
Language spoken at home:	
Spanish	98.6
Quichua	0.7
Other	0.5
Ethnicity:	
Mestizo	7.0
Indigenous	8.2
Black	1.7
White	0.9
Other	2.2
Religion	
Catholic	86.0
Protestant	1.2
Other	12.8
Socio-economic status	
Lower	27.1
Higher	72.9

Table 2.14 Counseling content and techniques, as reported by clients

Client reports that provider:	Age Groups			
	15-19	20-29	30-49	Total
For new clients	**n=20**	**n=66**	**n=35**	**n=121**
Showed how to use the method selected	95.0	97.0	97.1	96.7
Described possible side effects	85.0	83.3	74.3	81.0
Explained what to do in case of side effects/ complications	80.0	77.3	71.4	76.0
Explained that method does not protect against STD/AIDS (excludes condom users; n=116)	55.0	33.3	39.4	38.8
Discussed STD/AIDS (n=126)	45.0	34.3	43.6	39.8
Proposed condom in addition to method selected (not applicable for condom users)	30.0	40.6	43.2	39.7
For all clients	**n=50**	**n=330**	**n=202**	**n=584**
Discussed fertility intentions	54.0	53.6	49.5	52.2
Indicated when to return for follow-up	98.0	95.5	97.0	96.2

Counseling

The majority of new clients (over 70%) reported that providers showed them how to use their method, informed them of its side effects, and told them what to do in case of side effects or complications. The data suggest that new clients left the health facility believing in their ability to use the contraceptive method they received. However, less than half reported that HIV/AIDS topics were discussed during the visit with the provider. Managers contend that providers only talk about this topic with selected clients (Table 2.14).

Knowledge of contraceptive use

New clients reported a relatively high level of knowledge of contraceptive methods, based on key questions asked about the method selected. However, all clients reported lower rates of knowledge for the proper use of IUD. Managers at the institutions reported that the criteria used to measure knowledge of IUD is too complicated; therefore, in practice it is generally not discussed by the providers.[21] Instead, providers believed that it was more important to explain to clients how to recognize signs of complications (Table 2.15).

Method preference

Younger patients seem to receive special attention from providers. All new clients between 15 and 19 years of age discussed their preferred method and other contraceptive methods with the provider. Ninety percent of these clients received their preferred method.

Most of the 20- to 29-year-olds (97%) discussed their preferred contraceptive method and other contraceptive methods with the providers. Seventy-six percent of this group received their preferred method. The primary reasons given by this age group for not receiving their preferred method were that the contraceptive method was not appropriate and that the provider recommended another method.

[21] Providers considered the criteria for IUD self-inspection (checking materials) as too difficult for the clients to practice.

Table 2.15 Percent of new clients with correct knowledge of the selected method, by age group

For new clients	Age Groups							
	15-19		20-29		30-49		Total	
Method	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Pill	5	100.0	15	93.3	5	60.0	25	88.0
IUD	8	50.0	33	45.5	19	63.2	60	50.8
Injectable	6	100.0	10	100.0	5	80.0	22	95.4
Condom	--	--	3	100.0	2	100.0	5	100.0
Spermicide	1	100.0	3	66.7	2	100.0	6	83.3
Periodic abstinence, rhythm	--	--	1	100.0	--	--	1	100.0

The oldest group of new clients (30 to 49 years of age) reported the lowest percentage for receiving their preferred method (64%). This is not surprising as these clients often seek contraceptive methods that are no longer appropriate for them due to their advancing age. In fact, 53% of clients in this group reported either that the provider advised them against the method they had initially selected or that the provider recommended another method. (Table 2.16)

Some of the “other” reasons reported for not having received the method preferred were: not available at clinic today, not available at all, referred to another source, chose not to accept method at this time, no appropriate provider available that day, and no response. Only reasons that were related to the client’s condition and provider's decision were reported. Client's perception of not receiving the preferred method include some cases in which the client would have had to go to a different center for surgical procedures.

Attitudes toward services received

Over 80% of the clients across all age groups reported that they felt comfortable asking questions, that they received the right amount of information, that there was adequate privacy, and that the waiting time was reasonable. However, when clients were asked how they were treated by the provider and other staff, relatively few reported the enthusiastic “very well” as opposed to simply "well." None of the respondents answered “not well” or "bad." It should be noted that these responses could be the result of differing cultural understandings of the options, where perhaps "very well" and "well" seem almost the same. The data may also reflect a courtesy bias which may explain the lack of negative responses (Table 2.17).

If we compare the duration of the waiting time in minutes with the attitude toward waiting time, it is surprising to find the majority of clients waiting for over 60 minutes still reported waiting time as reasonable or short. These results may suggest a courtesy bias or resignation based on past experience (Table 2.18).

Table 2.16 Method preference among new clients by age group

	Age Groups			
	15-19 n=20	**20-29 n=67**	**30-49 n=39**	**Total n= 127***
Percent that discussed method preference with provider:				
Yes	100.0	96.6	97.0	97.3
No	--	3.4	3.0	2.7
Percent that received preferred method:				
Yes	90.0	76.1	64.1	74.6
No	10.0	23.9	35.9	25.4
Percent of clients reporting that provider discussed other methods:				
Yes	100.0	96.5	93.8	96.3
No	--	1.8	6.3	2.8
No method preferred	--	1.8	--	0.9
Percent received (or were prescribed, or referred for) each method:				
Pill	25.0	22.7	14.3	20.7
IUD	40.0	50.0	54.3	49.6
Injectable	30.0	16.7	17.1	18.9
Condom	--	4.5	5.7	4.1
Spermicide	5.0	4.5	8.6	5.8
Periodic abstinence/ rhythm	--	1.5	--	0.8
Among those who did not get preferred method, percent distribution of reported reasons:	**n=1**	**n=8**	**n=8**	**n=17**
Preferred method was not appropriate	--	25.0	37.5	29.4
Provider recommended another method	--	37.5	12.5	23.5
Changed mind after listening to provider	100.0	--	12.5	11.8
Other	--	37.5	37.5	35.3

*actual n varies from 108 to 126 due to missing values

Table 2.17 Clients' attitudes toward services received

	Age Groups			
Client reported that she felt: For all clients	**15-19 n=50**	**20-29 n=330**	**30-49 n=202**	**Total n=582**
Comfortable asking questions	96.0	96.4	97.0	96.6
That she received the "right amount" of information	90.0	80.3	81.2	81.40
That other clients could **not** hear their conversation	90.0	86.1	88.1	87.1
That information given would remain confidential	94.0	90.6	91.6	91.2
That the provider treated her:				
Very well	20.0	33.0	37.6	33.5
Well	80.0	67.0	62.4	66.5
That the other staff treated her:				
Very well	18.0	29.1	36.6	30.8
Well	82.0	70.3	62.9	68.7
That privacy was adequate during the pelvic exam	95.5 (n=44)	91.8 (n=292)	93.5 (n=169)	92.7 (n=505)
That waiting time was reasonable	86.0	86.7	85.1	86.1

Table 2.18 Duration of wait time by attitude toward waiting time for all clients

	Attitude Toward Waiting Time		
Duration of wait in minutes:	**No waiting time (n=46)**	**Reasonable/ Short (n= 457)**	**Too long (n=80)**
0- 14	21.7	77.3	1.0
15- 29	2.1	90.0	7.9
30- 44	--	88.0	12.0
45- 59	--	87.0	13.0
60- 74	--	77.4	22.8
75 +	--	39.1	60.9

p-value < .001

Experience of follow-up clients

With regard to follow-up clients only, almost 29% experienced a problem with their contraceptive method. Among the three age groups, the 20- to 29-year old women experienced the most problems with their method (33%). However, over 99% of these clients were satisfied with the care, advice and treatment provided at the health facility (Table 2.19).

Client/Provider Information Exchange Index for new clients

The information exchange index was created by adding the positive responses of the following variables: client discussed preferred method with the provider, provider explained that there are other methods in addition to the preferred method, provider showed client how to use the method selected, provider described possible side effects, and provider explained what to do in case of side effects/ complications. Each variable was given a weight of one, and the index ranges from 0 to 5. Our purpose here is to compare the average scores of the information exchange index among groups of clients according to selected characteristics.

The average information exchange index scores were greater than 4 for almost all sub-groups of clientele. These data suggest that clients were achieving informed choice in method selection, were aware of their options, and had their concerns met with respect to the contraceptive method preferred and selected. Furthermore, it appears that overall, the users from these institutions were satisfied with the information received (Table 2.20).

Table 2.19 Experience of follow-up clients.

	Age Groups			
	15-19 (n=24)	**20-29 (n=232)**	**30-49 (n=148)**	**Total (n=404)**
*Provider asked client if she has experienced a problem with method	83.3	90.9	79.7	86.4
*Client had experienced problem with the method	25.0	33.2	21.6	28.5
Among those experiencing a problem:	**n=6**	**n=77**	**n=32**	**n=115**
Percent of cases where provider tried to understand the nature of problem	100.0	98.7	100.0	99.1
Percent of cases where provider made suggestions to resolve problem	100.0	96.1	100.0	97.4
Percent of cases where client was satisfied with advice or treatment	100.0	100.0	96.9	99.1

* p-value < .05

Table 2.20 Client/ Provider Information Exchange Index for new clients by client characteristics

Characteristic	Index Score Among Sub-Groups of Clientele (out of a possible 5)	n
Total: new clients	4.13	127
Number of living children:		
0	3.90	10
1 – 2	4.14	87
3 – 4	4.23	26
> 5	3.50	4
Age group:		
15 –19	4.50	20
20 – 29	4.21	67
30 – 49	3.77	39
Highest education level attended:		
No Education	5.00	1
Primary	4.03	32
Secondary	4.20	66
University	4.04	28

Table 2.21 New clients' attitudes towards amount of information received by Information Index

Perceived Information	Information Exchange Score	
	Mean	**n**
Too little	3.47	19
Too much	4.00	2
About right	4.24	106
Total	4.13	127

As expected, those clients who felt that the amount of information they received was "about right" were also those with the highest mean Information Index Score (Table 2.21). There were 19 women who reported that they had received "too little" information (15%).

In summary, the clients who attended the FP consultations at these institutions were highly similar in terms of socio-economic characteristics. However, there were slight differences in the analysis of the data by age group. In general younger clients reported that they received more attention from the providers than did the older clients. This may be explained by the fact that younger clients tend to be new users. However, client satisfaction was reported at the same level for all age groups.

2.5 Methodological issues and programmatic implications

2.5.1 Methodological issues

In Ecuador the instruments were applied according to the original instructions developed by the QIQ working group. In doing so, several problems were experienced including the definition of new client, and the format and applicability of the instruments. These observations should be addressed in future applications of the instruments in Ecuador.

Definition of new client

The QIQ definition of a new client included: a client seeking FP service for the first time at the facility unit, a client who used FP services but discontinued use for six months or more, and clients who have switched methods. The experience in Ecuador suggests that clients who have switched methods be excluded from the definition because they are already using a method.

Facility audit

It is recommended that several adjustments be made to the original format of the facility audit instrument. The data collection team followed the original instructions to count every piece of equipment and all the supplies listed on the facility audit. They found this to be time-consuming and of questionable value. Instead, it is recommended that the person collecting the data determine that there is at least one of each item of equipment in working order as well as some stock of specific supplies or commodities. It is also suggested that an additional open-ended question be added to the questionnaire eliciting information about recent/innovative changes made in facility infrastructure or procedures.

Another recommendation from the research team is that the QIQ be applied to the delivery of reversible contraceptive methods only, not to voluntary surgical contraception. The facilities that provide the latter tend to be better equipped in general, and the control of quality in such facilities may need a more specialized instrument.

Observation of client-provider interaction

As previously mentioned, Ecuador facilities use FP counselors in a addition to other clinical service providers. Counselors—social workers, psychologists, and health educators—provide information in one-on-one sessions (especially for new clients) or in group presentations. These activities take place before the client sees the clinical service provider. In the application of the field test in Ecuador, the focus was exclusively on the interaction between the client and the clinical service provider—the instruments did not capture the exchange of information with the counselor. As such, certain actions may be "underreported" in the observation, since they may have taken place in the session with the counselor. Most likely, the counselor would have made notes on the clinical charts which were not reviewed by observers.

This situation underscores the need to fully understand the components of a clinic visit before applying the QIQ in a given setting. Several suggestions for remedying this shortcoming were discussed in the preliminary presentation of results in Ecuador. For example, applying a patient flow analysis and a systematic review of information written on clinical charts were suggested. More radical suggestions were to not use the instrument at all and replace it with a self-assessment instrument for the technical section. Due to the fact that observation of the client-provider interaction was limited to one day per facility, the presence of the Hawthorne effect should be taken into account.

A second consideration relates to the grid on "provider gives accurate information on specific contraceptive methods." With regard to female sterilization, the grid asks whether the provider informed the client of the pain that the woman often experiences shortly after the operation. Providers objected to this item on the grounds that this type of side effect is transitory—that it would be more productive to focus on long-term secondary effects of a given method. If this item is to remain on the form, the service provider should be observed to accurately communicate the transitory nature of this effect.

Client exit interview

The major shortcoming with this instrument is the potential for courtesy bias. Clients interviewed immediately after their consultation are often hesitant to report complaints; instead they try to answer what they think the interviewer wants to hear. Although it is not possible to eliminate courtesy bias, it may be possible to reduce it by having the interviewer stress that she does not work for the service organization under study.

2.5.2 Programmatic implications

The QC field test in Ecuador generally indicated a high level of quality of care in the network of clinics of the two NGOs studied. In fact, on the large majority of indicators the percent giving the expected answer was over 70%. However, there were certain findings that have programmatic implications for the continued improvement of quality in these facilities. The findings suggest that it would be useful

- To review the counseling guidelines used at the facilities, with the aim of better integrating the activities of clinical service providers and counselors in counseling new and follow-up clients

- To encourage counselors and other health professions to provide information on HIV/AIDS to their clients during counseling sessions, given the growing spread of the epidemic in the country

- To promote continuous education for clinical service providers in infection control and clinical procedures

- To create a committee at each clinic to develop mechanisms to identify suggestions for making quality improvements and strategies to carry them out

- To maintain continuous monitoring of quality of care throughout the network of clinics

Two other suggestions emerged from this exercise. First, it would be useful in the future to promote greater participation of clinic staff in reviewing the results of evaluations such as the QIQ. Second, there is interest in conducting the QIQ in this same set of facilities after a 12-month period to evaluate whether changes have occurred. In this case, it would be useful to include more information on patient flow and to make further changes in the facility audit instrument. Ideally, this follow-up study would include the full universe of facilities. However, if for cost reasons a sub-sample of facilities was included instead, one might compensate by extending the period of stay in each clinic to three days.

2.6 Presentation and utilization of results at the local level

2.6.1 Presentation of results

In Ecuador, the results of the field test were presented to CEMOPLAF and APROFE with the objective of identifying ways in which to improve supervision and future program initiatives and to determine lessons learned for future rounds of the QIQ methodology. Methodological issues that arose during QIQ field test were discussed in terms of how they affected the fieldwork and the subsequent interpretation of results. For example (as previously mentioned), the results of the client-provider interaction were interpreted with caution due to the fact that the entire counseling session was not observed.

At CEMOPLAF and APROFE, the presentation of the results also included detailed information about how each facility performed on the various indicators. Indicators that performed poorly were

discussed both in terms of what might explain the poor results and in terms of what changes needed to be made to bring about improvements. These specific results were presented with the objective of increasing discussions among program managers and stimulating commitment to make changes based on the findings. To facilitate this process, results were reported in the following format to illustrate the differences between the individual facilities.

2.6.2 Utilization of results at local level

Local managers from both CEMOPLAF and APROFE, managers at the central level, directors, donors and researchers participated in discussions at the country level with the aim of determining areas in need of programmatic changes based on the results of the QIQ. The attendance and level of participation at these meetings offered assurance that the findings of the QIQ will be used as a guide to improve the functioning and quality of the services at the facilities involved in the field test, and as input for further research on quality of care.

Example. Percentage distribution of findings on the observation of client-provider interaction by facility

Centro	**Explained That the Method Did Not Protect for HIV/AIDS %**	**Promoted the Use of Condom as Complementary Method %**	**Use of Visual Aids %**
Centro 1 Piloto Guayaquil			
Centro 2 La Alborada			
Centro 3 Piloto Quito			
Centro 4 Cuenca			
Centro 5 Machala			
Centro 6 Babahoyo			
Centro 7 Portoviejo			
Centro 8 Loja			

Chapter III

Turkey Quick Investigation of Quality of Family Planning, Post-partum, and Post-abortion Clients

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3. Turkey Quick Investigation of Quality of Family Planning, Post-partum, and Post-abortion Clients

3.1 Overview of the field test in Turkey

3.1.1 Importance of the field test in the local context

The Turkey Quick Investigation of Quality (QIQ) field test was designed to provide baseline data for the USAID/Turkey performance monitoring plan (PMP) and to provide local Cooperating Agencies (CAs) and other Turkish partners with information for the management of their reproductive health programs. USAID/Turkey began revising its strategic framework early in 1998. The new strategic framework emphasizes the expansion of high quality family planning/reproductive health (FP/RH) services, focusing on increased availability of post-partum and post-abortion family planning services, and accurate knowledge among clients about their contraceptive method. USAID/Turkey also decided to focus their efforts initially on the province of Istanbul due to its high population and high abortion rate.

A series of indicators to monitor efforts to improve the quality of and access to FP/RH services were developed collaboratively by partners in Turkey. Given the emphasis on quality of care in the strategic framework and in the indicators defined, USAID/Turkey and their partners needed a low-cost, rapid assessment tool to monitor the quality of FP/RH care annually. Therefore, Istanbul provided an excellent site for the field test of the QIQ. The QIQ has become one of the major data sources for the USAID/Turkey PMP.

3.1.2 Adaptation of the instruments to local needs

The instruments used in the Istanbul QIQ were somewhat different from the standard QIQ instruments used in the other countries participating in the field test for several reasons. First, in order to meet USAID/Turkey's schedule for their PMP, the field test in Turkey was undertaken in October 1998 which makes it one of the first test sites for the QIQ. At that time, the standard QIQ instruments had not been finalized so Turkey used selected questions from the draft instruments. A second, more significant reason for the differences between the instruments is that Turkey wanted to use the QIQ to collect the data for the indicators they had designed for their PMP, rather than for the standard indicators developed by MEASURE *Evaluation* and the M&E subcommittee of the MAQ. In order to keep the methodology low cost and practical, the instruments focused on the indicators for the USAID/Turkey PMP and local management.

The QIQ field test in Turkey included a facility inventory (or audit) and client exit interviews, but it did not include an observation component. The client exit interviews were conducted with FP clients, and with post-abortion clients and post-partum clients in order to address issues of particular concern in Turkey. [22] The facility inventory and FP client exit interviews were also quite different from the standard instruments. The facility inventory included the following topics: visibility of FP services through signs, physical infrastructure, availability of IEC materials, adequacy and appropriateness of staff, cleanliness of the facility, infection prevention, contraceptive methods available, subjective assessment of service quality, storage conditions, contraceptive logistics, and supervision and feedback. The facility inventory did not include the list of equipment and supplies included in the standard QIQ facility inventory, and many of the other questions in the standard instrument were either adapted or deleted.

[22] An exit interview questionnaire was also developed for antenatal care clients. The interview focused on family planning counseling during antenatal care visits. It was used initially in the survey but was not found to work well and was subsequently dropped.

The FP client exit interview questionnaire included socio-demographic background characteristics of the client, method-specific knowledge questions, and client satisfaction with the services received. All of the questions were tailored to the information needs of the programs in Turkey, particularly the indicators for the PMP, so even when these topics overlap with those covered by the standard instruments, different questions were often used.

The exit interview questionnaires developed for the post-abortion and post-partum clients were similar to the questionnaires used for FP clients. They included questions on the socio-demographic background characteristics of clients, and method-specific knowledge questions for method acceptors. However, the questionnaires also included a section on post-abortion/post-partum FP counseling, and did not include the section on client satisfaction included in the FP client exit interviews.

In addition to the exit interviews, mystery clients were used in 15 low volume facilities where it was not feasible to post interviewers for long periods of time to wait for FP clients. One mystery client visited each low volume facility. The mystery clients posed as FP clients and asked for pills or condoms. They were then interviewed immediately after their visit using a modified version of the client exit interview questionnaire. The mystery clients also visited five high volume clinics. In these sites, both the mystery and the real clients were interviewed following their visit so that the responses of the mystery clients could be compared to those of real clients. Again, one mystery client visited each facility.

Given the extensive differences between the instruments used in Turkey and the standard instruments, the QIQ field test in Turkey represents a trial of the approach to monitoring quality of care rather than a field test of the specific instruments. It also provides an excellent example of how the general approach can be adapted to meet specific program needs.

3.2 Sampling

The facilities included in the Istanbul QIQ were selected from lists of all public health facilities that provide FP services in the province of Istanbul maintained by the Istanbul Health Directorate and the Social Security Directorate. Family planning services are provided at several different types of facility in Turkey. The sample for the survey includes all public hospitals, all public MCH/FP Centers, and one-third of the Health Centers that provide FP services in the province. The health centers were stratified according to the number of outpatient visits daily and the number of FP visits daily. One-third of health centers were randomly selected from each stratification cell. The public hospitals surveyed include hospitals operated by the Ministry of Health (MOH) and hospitals operated by the Social Security Organization (SSK). Twenty-three of the 95 private hospitals in Istanbul also agreed to participate in the study. The sample of private hospitals is based on their consent so it is not a random sample.

Each interview team spent two days in each facility. All family planning clients, post-partum clients, and post-abortion clients who attended the facility during the two days were eligible for the exit interviews. [23] Abortion and delivery services are provided at hospitals so the post-abortion and post-partum client exit interviews were only conducted at hospitals. Table 3.1 shows the final sample sizes for the survey.

[23] For this survey, family planning clients are defined as clients who adopt/continue a method. Women who visited the facility to discontinue contraceptive use (e.g., to have an IUD removed) and who did not adopt another method are not included in the survey.

Table 3. 1 Sample sizes for the Istanbul QIQ

Health Facilities		Client Exit Interviews	
Type	**Number**	**Type**	**Number**
Health centers	52	Family planning	928
MCH/FP centers	32	Post-partum	480
Public hospitals		Post abortion	74
MOH	14		
SSK	7		
Private hospitals	23		
Total	128	Total	1,482

3.3 Fieldwork

3.3.1 Organization of teams

The project headquarters was established at the Istanbul Health Directorate MCH/FP Department. The Chief of the MCH/FP Department and her two deputies were oriented at the beginning of the survey. Three CA staff members also joined that team and together they acted as supervisors throughout the survey. This local supervision team was based at the MCH/FP Department in two rooms equipped with two computers, two phone lines (one for the fax) and a photocopy machine.

The number of interviewers needed for each facility was determined from the expected client load of each facility. One interviewer was assigned to health centers and low volume MCH/FP Centers, two interviewers were assigned to high volume MCH/FP Centers and low volume hospitals, three interviewers were assigned to high volume hospitals, and four interviewers were assigned to maternity hospitals, which have high numbers of post-partum clients.

3.3.2 Recruitment and training of interviewers and facility auditors

Three types of people were recruited as interviewers for the survey: master FP trainers for the facility audit, FP trainers for both the facility audit and the client exit interviews, and physicians/nurses for the client exit interviews. In total, three master trainers (all physicians), seven FP trainers (all physicians) and 15 physicians and nurses were recruited. All but one of the staff recruited were female. The one male staff member was assigned to the facility audit and did not conduct client exit interviews. All the staff recruited from the MOH were assigned to public sector facilities, and four nurses and one nurse trainer were recruited from the private sector for the 23 private hospitals. Since Istanbul is one of the biggest cities in the world and divided between two continents, the location of facilities to be surveyed was the most important factor in recruiting the interviewers and facility auditors. The local team prepared a list of available survey personnel with their addresses. At minimum, effort was spent to match the addresses of interviewers and facilities to be on the same continent. Interviewers were not assigned to facilities in which they worked or to facilities in their own neighborhoods.

Two days before the training all the survey staff were invited to a half-day meeting. The purpose of the meeting was to introduce the survey, share the timetable, and share the data collection tools. This allowed survey staff to familiarize themselves with the questionnaires before the training and review the assigned daily routes to assure their feasibility. Interviewers were also able to exchange their assigned facilities with others for better access to the facilities. Advance payments were made to the teams at this meeting.

During the first day of the training the interviewers and facility auditors received the same training

on the data collection tools. Possible responses and interpretation of non-standard responses were discussed in detail for each question. A sample of all the training and IEC materials, posters, and books listed on the facility audit were brought to the training room for review. After the presentation of the tools, at least two role plays of exit interviews were conducted.

During the second day of the training, three non-survey health centers and two hospitals were selected for on-site training. Local team members and CA staff divided the survey staff between the selected facilities and assured that each interviewer had a chance to conduct at least one exit interview and fill out at least two exit interview questionnaires. Facility auditors also had the chance to visit non-survey facilities and fill out facility audit forms.

Three women from a community based distribution project site were recruited as mystery clients. Three master FP trainers were matched with the mystery clients for data collection, and they were trained together during a private session conducted separately.

3.3.3 Supervision and control of data quality

Before the start of the data collection, all facility managers were informed about the general purpose of the survey by an official letter. Each day, one of the local supervision team members telephoned the managers of the facilities scheduled for the next day before sending the interviewers. In addition, the survey supervisors visited all the hospitals prior to the fieldwork to inform the hospital management about the survey. During this visit they also mapped out the client flow in the hospital and identified the ideal place for the exit interviews in order to minimize the risk of losing clients before the interview. During the first day of the survey at the hospitals, the interviewers were met by a supervisor and directed to their preassigned interview locations.

All interviewers were instructed to call the survey headquarters immediately after they reached their assigned facility. During the day, one supervisor called the facilities being surveyed from the survey headquarters while the other supervisors visited the interviewers in the field. Visiting supervisors played an important role in the control of data quality and also in the survey logistics. They met the interviewers on site, reviewed the completed questionnaires, brought the completed questionnaires back to the headquarters, and left blank questionnaires with interviewers when necessary. Since the number of facilities surveyed each day typically varied between 10 and 14, two or three supervisors were able to visit all of them each day.

Facility auditors typically completed 2-4 facility inventories each day. They were instructed to return to the survey headquarters every evening (or, if that wasn't possible, every two days) to discuss their findings and return the completed audit forms. The supervisors took that opportunity to review each facility inventory and approve it for data entry.

At the end of the first week of fieldwork a review meeting was organized with all the staff. During the meeting common mistakes on data collection and ideas for improvement were discussed. Any logistics problems that had arisen were resolved.

Since the supervisors were able to collect the questionnaires daily, data entry began on the second day of fieldwork. Two data entry staff entered the data using Epi-Info. Data entry staff were instructed to bring every unclear, inconsistent, or ineligible piece of data to the supervisor at the survey headquarters.

3.3.4 Duration of fieldwork

The fieldwork took 16 working days. During the design process it was planned to visit the high volume facilities first. This helped the data entry to catch up with the fieldwork and the data entry team were able to finish data entry only one day after the fieldwork ended.

3.3.5 Difficulties encountered

Although the survey went smoothly overall, there were a few difficulties worth mentioning.

- **Istanbul's horrible traffic** More than 11 million people living in a very dense industrialized area made life difficult, especially for supervisors. Reaching a nearby health center

in slow moving traffic sometimes took a couple of hours. Monday and Friday traffic were an additional torture for everybody.

- **Lack of a health facility database** Although a list of all health facilities and their phone numbers was available to the team, the exact addresses, and especially directions to the facility, were not documented. In the Istanbul metropolitan area most of the MCH/FP Centers and Health Centers did not have their own separate building. Unlike rural facilities these centers were often located in apartment buildings. Rapidly growing urban slum areas usually lack detailed, logical and sequential street names and door numbers. Since the majority of MCH/FP and Health Centers were established in those areas where the need is greatest, the team had to rely on directions taken on the phone and on the memory of other staff who had visited those places before to find the facilities.

- **Small health centers** A few health centers were very small, which had a negative effect on privacy during the interview. Interviewers had to work hard to create audio-visual privacy during the interviews in those centers.

3.4 Results

The results presented in this section are taken from the report of the 1998 Istanbul Quality Survey.[24]

3.4.1 Characteristics of Clients

Table 3.2 presents some basic socio-demographic characteristics of the clients interviewed in the exit interview. The mean number of living children was lower among post-partum clients (1.1) than among family planning and post-abortion clients (2.2 and 2.3, respectively). Post-partum clients were also more likely to want additional children than either family planning or post-abortion clients. Post-abortion clients were the oldest on average while post-partum clients were the youngest. About two-thirds of family planning and post-partum clients had graduated from primary school, compared to just over half of the post-abortion clients.

Figure 3.1 presents the contraceptive method mix among the 928 family planning clients. Half of all clients were using the IUD. About 22% of the clients were using the condom and the pill, and only 5% of clients were using the injectable. Thirty-nine percent of the family planning clients were new users of their method (data not shown).

Table 3.2. Selected characteristics of clients.

Characteristic	Family Planning Clients	Post-Abortion Clients	Post-Partum Clients
Mean no. living children	2.2	2.3	1.1
% want no more children	73.2	79.5	52.2
Mean age	29.0	30.3	25.4
% primary school graduates	67.5	52.8	65.3
Number of clients	928	74	480

[24] Istanbul Quality Survey – 1998. Prepared by the MSH/Turkey Office, December 1999.

Table 3.3 Percentage of facilities that have each element of infrastructure by type of facility.

Infrastructure	Hospitals			Outpatient Clinics		
	Public MOH	Public SSK	Private	MCH/FP Centers	Health Centers	Average
- Separate room for FP services	63.0	100.0	100.0	90.6	52.9	73.8
- Place for group counseling	23.0	28.6	17.4	71.9	29.4	37.3
- Waiting area near/in the FP unit	76.9	100.0	100.0	96.9	76.5	87.3
- Room for individual counseling	31.0	29.0	95.7	46.9	30.0	46.4
- Accessible toilet with running water & electricity	100.0	86.0	87.0	71.9	67.3	75.8
Number of facilities	14	7	23	32	52	128

3.4.2 Facility infrastructure

Five elements of facility infrastructure were assessed using the facility audit: (1) a separate room for FP services, (2) a place for group counseling near/in the FP unit, (3) waiting area near/in the FP unit, (4) a room for individual counseling with audio-visual privacy, (5) accessible toilet with running water and electricity. Table 3.3 shows the percentage of each type of facility that had each of these elements of infrastructure.

Most facilities have a waiting area in or near the FP unit and an accessible toilet with running water and electricity. While most of the hospitals and MCH/FP centers had separate rooms for family planning services, almost half of the health centers did not. The main reason for this is likely to be space limitations at the health centers. Most of the facilities did not have a place for group counseling, and only private hospitals consistently had rooms for individual counseling. Only 17% of facilities had all five of these elements of infrastructure (data not shown).

3.4.3 Management and logistics

Information on a number of indicators related to management and logistics systems were collected in the Istanbul QIQ. These indicators cover storage of contraceptives, contraceptive stock-outs, availability of trained personnel, feed-back and supervision, and the visibility of services.

Figure 3.1
Method Mix Among Family Planning Clients.

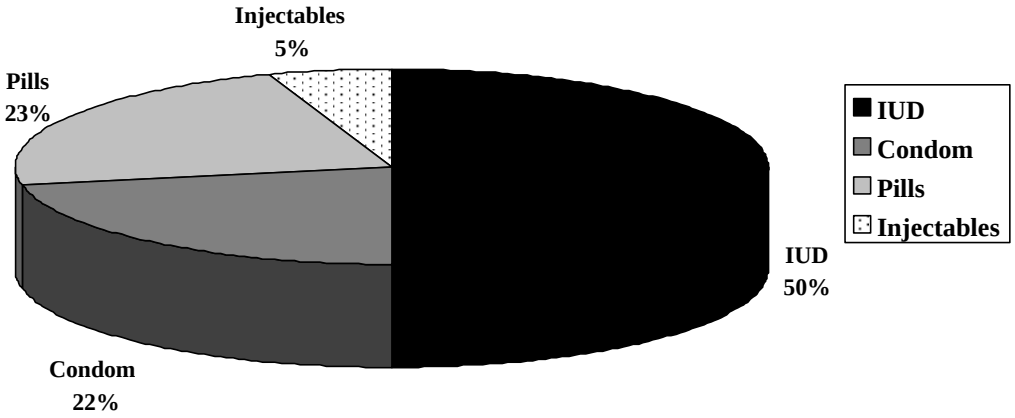
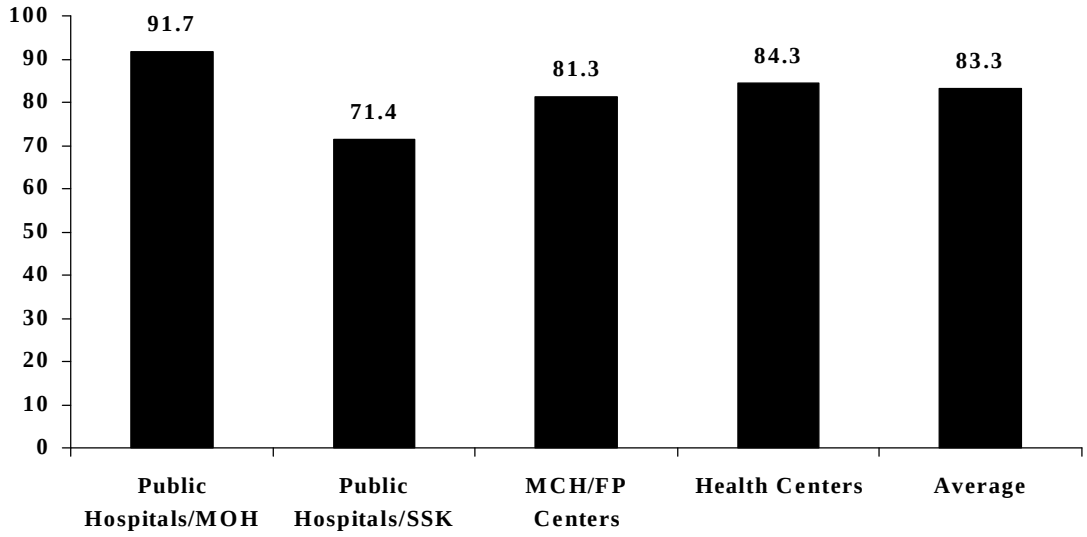


Figure 3.2.
Adequate Contraceptive Storage Conditions



N=105

Table 3.4 Percentage of facilities that did not experience any contraceptive stock-outs in the preceding six months, by method and type of facility.

	Hospitals		Outpatient Clinics		
Method	Public MOH	Public SSK	MCH/FP Centers	Health Centers	Average
IUD	69.2	28.6	96.7	85.0	81.4
Pill	45.5	28.6	96.6	74.0	74.2
Condom	27.3	0.0	71.9	58.8	55.4
Number of facilities	14	7	32	52	105

Figure 3.2 shows the percentage of facilities that have adequate storage of contraceptives by type of facility.[25] Facilities are defined to have adequate storage of contraceptives if they meet all of the following eight criteria: (1) contraceptives are accessible on the day of the visit, (2) contraceptives are stored away from direct sunlight, (3) contraceptives are stored to prevent water damage, (4) contraceptives are stored without direct contact with walls or floors, (5) the storage room is clean, (6) the storage room is properly lit, (7) the storage room is the cool enough, (8) the storage room is adequately ventilated. More than 80% of MOH hospitals, MCH/FP centers, and health centers and 71% of SSK hospitals had adequate contraceptive storage conditions.

Table 3.4 shows the percentage of facilities that experienced no contraceptive stock-outs in the six months preceding the survey, by type of facility and method.[26] Stock-outs are fairly common in public hospitals, especially SSK hospitals, but are less common in health centers. MCH/FP centers rarely experienced stock-outs of IUD and pills. In all facilities, stock-outs of condoms were more common than stock-outs of pills or IUDs.

Figure 3.3 shows the percentage of facilities that had staff trained in family planning services available. Facilities are defined as having trained staff available if they had at least two staff members trained in family planning assigned to the facility, and at least one trained staff member was present at the facility at the time of the visit. Over 75% of public hospitals, private hospitals, and MCH/FP centers had trained family planning staff available. However, only 43% of health centers did. MCH/FP centers are better staffed than the other types of facilities.

Regular feedback to and supervision of staff are important elements in promoting good quality family planning services. Figure 3.4 shows the percentage of facilities that were visited by a supervisor in the six months before the survey, and the percentage of facilities that received written feedback on their family planning service performance in the same period. Nearly 90% of MCH/FP centers had been visited by a supervisor in the preceding six months. However, only 31% of health centers and 21% of MOH hospitals had received a supervisory visit. No facilities other than a few SSK hospitals had received written feedback on their family planning services.

[25] Information on contraceptive storage conditions was not collected for private hospitals because they do not keep supplies of contraceptives on hand.

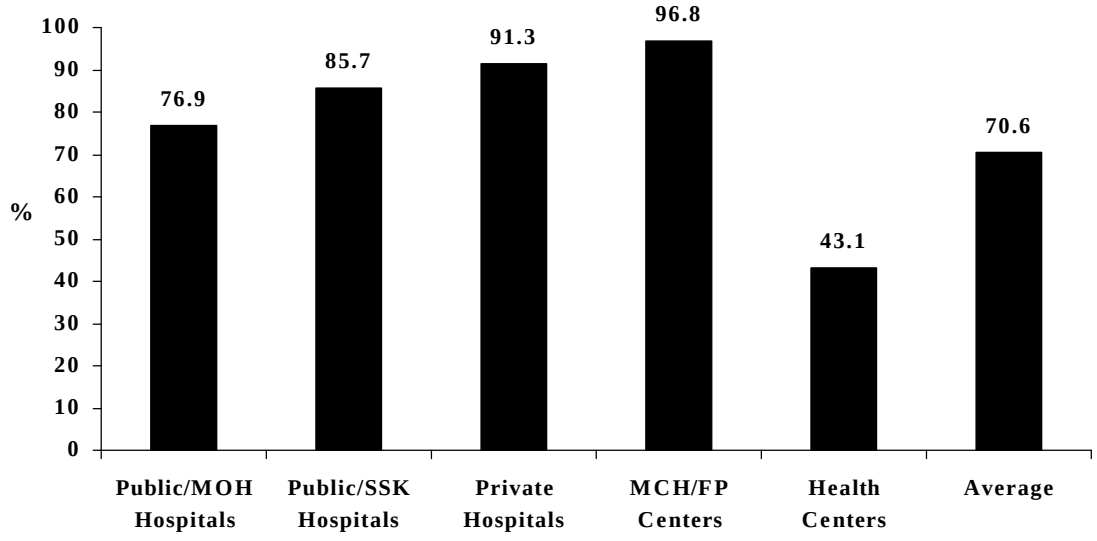
[26] Information on contraceptive stock-outs was not collected for private hospitals because they do not keep supplies of contraceptives on hand.

Adequate sign posting of family planning services is important to let potential clients know that family planning services are available at a facility and to help clients find the services in the facility without the potential embarrassment of having to ask. Table 3.5 shows the percentage of facilities that had permanent signs displayed outside the building, inside the building, and on the door of the family planning unit. Almost all MCH/FP centers had a permanent sign for family planning services on the outside of the building, and 87% had a permanent sign on the door of the family planning unit. However, only half of them had a permanent sign inside the building to direct clients to the family planning unit. No MOH hospitals and only two percent of health centers had permanent signs for family planning services on the outside of the building. The visibility of family

Table 3.5 Percentage of facilities that have permanent signs for family planning services by type of facility

	Hospitals			Outpatient Clinics		
Location of Signs	Public MOH	Public SSK	Private	MCH/FP Centers	Health Centers	Average
Outside the building	0.0	57.1	47.8	93.8	1.9	35.9
Inside the building	42.9	42.9	39.1	50.0	9.6	30.5
On the door of the FP unit	50.0	100.0	30.4	87.1	30.8	50.4
Number of facilities	14	7	23	32	52	128

Figure 3.3
Availability of trained staff



N=128

planning services is particularly low in health centers. Only 17% of facilities had permanent signs in all three locations (data not shown)

3.4.4 Infection prevention

The Turkey QIQ did not collect a lot of information on the quality of the clinical provision of family planning services because it did not include an observation component. However, the survey did include questions on the infection prevention measures taken in facilities. Infection prevention is considered a key element of the quality of services in Turkey and is included in the Quality Index developed for the USAID/Turkey PMP.

In order to be classified as having acceptable infection prevention standards, a facility must meet all of the following four criteria: (1) a plastic bucket for chlorine solution must be available in the examination room, (2) unused IUD kits must be kept sterile, (3) medical waste must be kept in leak-proof containers with a lid, (4) appropriate containers must be available for the disposal of sharp objects. Figure 3.5 shows the percentage of facilities that had acceptable infection prevention standards according to this definition by type of facility. Less than half of all types of facilities met this standard. The percentage was highest for MCH/FP centers (41%) and lowest for private hospitals (4%). Only 17% of private hospitals had plastic buckets for chlorine solution in all examination rooms and only 52% had leak-proof containers with lids for medical waste (data not shown).

3.4.5 Method choice and information

Informed choice of methods is widely recognized as an essential component of good quality family planning services. In order to provide informed choice of method to clients, a range of methods must be available and clients should be fully counseled about the correct use of their method and its potential side effects.

Figure 3.4
Feedback and supervision

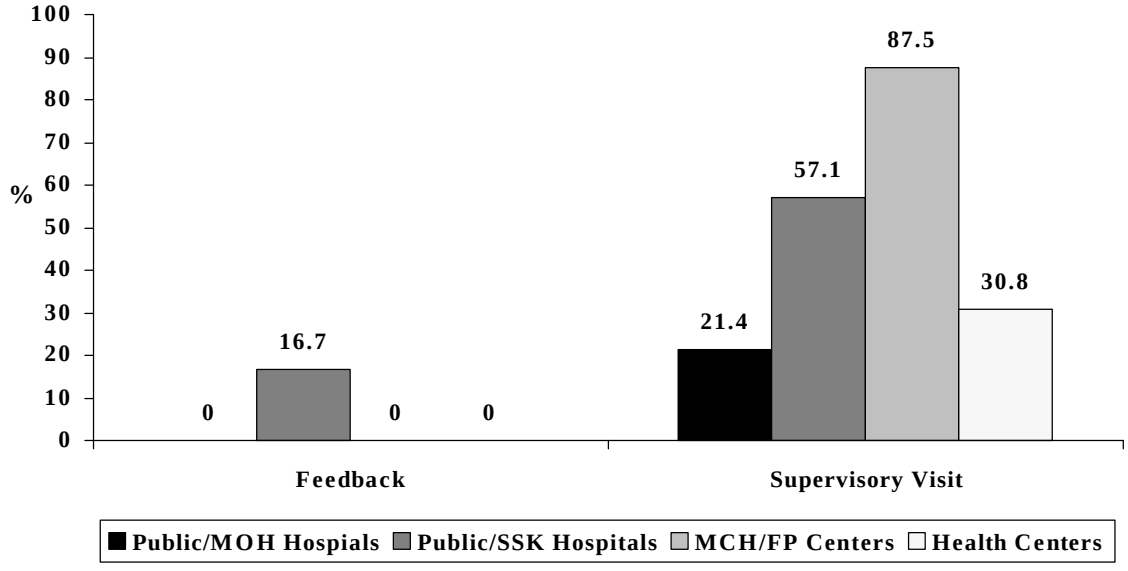
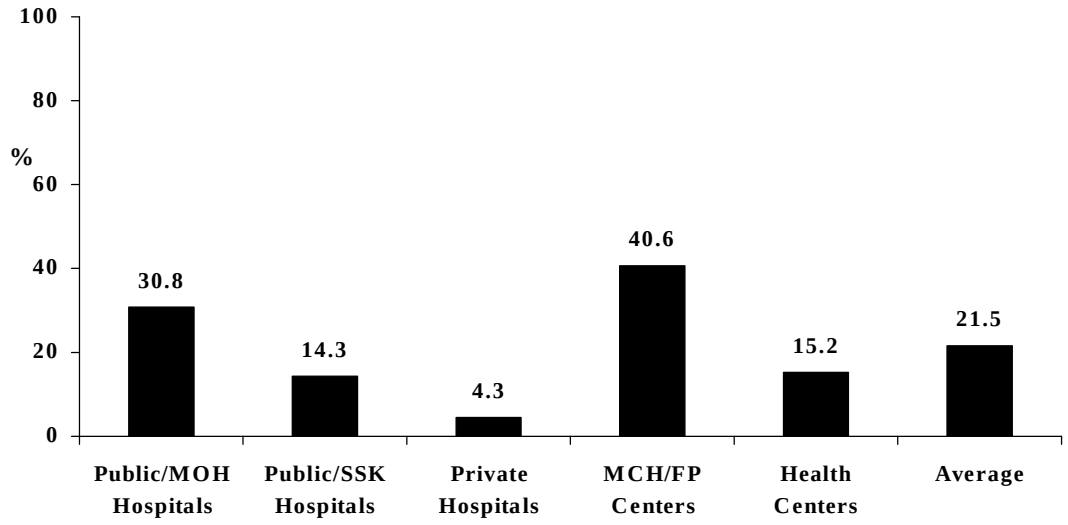
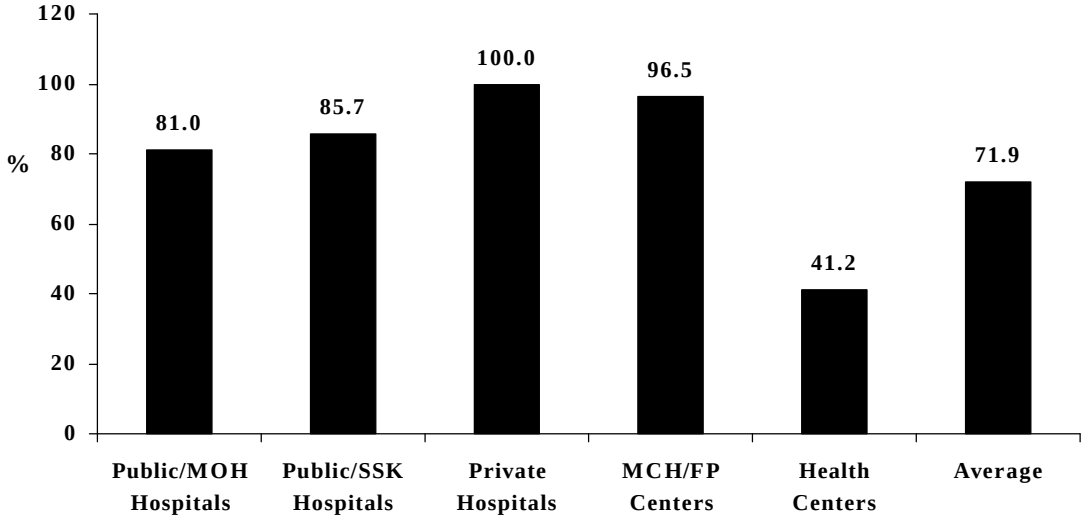


Figure 3.5
Acceptable infection prevention measures



N=128

Figure 3.6
Provision of three or more modern contraceptive methods



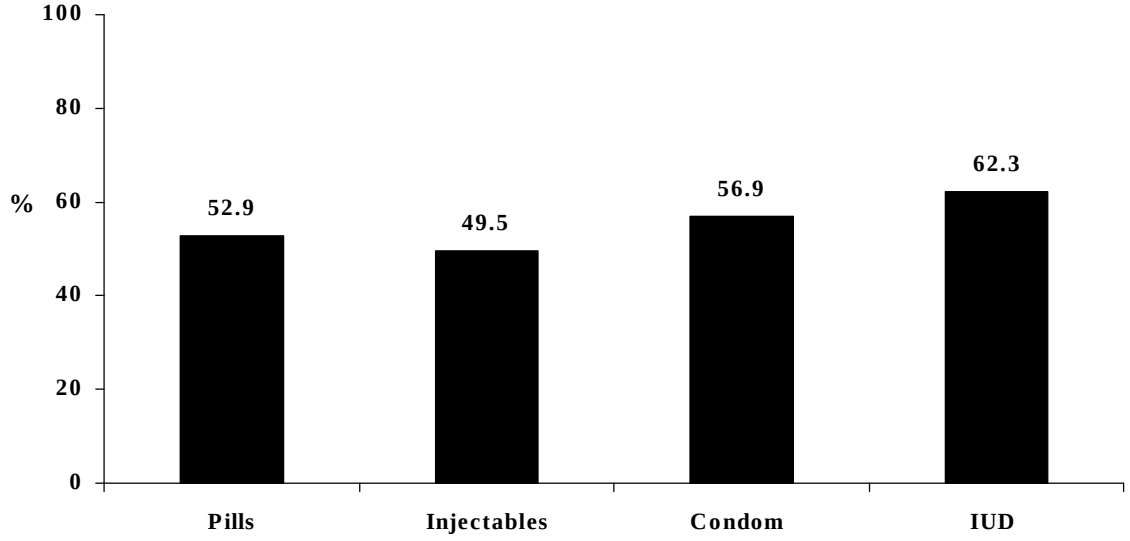
N=128

Figure 3.6 presents the percentage of facilities that distribute or prescribe at least three modern contraceptive methods. All of the private hospitals and 97% of the MCH/FP centers in the survey either provided or prescribed at least three modern methods, as did over 80% of public hospitals. In contrast, only 41% of health centers did. In general, fewer facilities of each type provided (or prescribed) injectables and sterilization[27] than IUD, Pill, or condom.

Counseling of clients was not observed in the Turkey QIQ so there are no observational data on the topics discussed by providers and their clients. However, in the exit interviews, clients who had chosen a contraceptive method were asked a number of questions about their knowledge of their method. The questions asked were method-specific. Pill users were asked five questions about the correct use of the pill and its side effects. Condom users were asked two questions about correct use of condoms. IUD users were asked four questions about using the IUD and its side effects, and injectables users were asked three questions about when to return for their next injection and the side effects of injectables. In addition, all clients were asked whether their method provided protection against STDs. Therefore, the number of knowledge questions asked ranges from three for condom users to six for pill users.

Figure 3.7 shows the average percentage of questions answered correctly by users of each method. On average, clients were able to answer just over half of the questions on their method correctly. Knowledge was lowest among injectable users and highest among IUD users. The percentage of clients who were able to answer all the knowledge questions on their method correctly ranged from 5% for pill users to 17% for IUD users (data not shown).

Figure 3.7
Mean percentage of knowledge questions answered correctly by method



[27] Hospitals only.

Table 3.6 Percentage of facilities with specific IEC materials available.

IEC Materials	Hospitals			Outpatient Clinics		
	Public MOH	Public SSK	Private	MCH/FP Centers	Health Centers	Average
National FP guidelines	64.3	85.7	17.4	84.2	50.0	56.3
FP pocket guide	57.1	71.4	13.0	78.1	59.6	56.3
FP flip-book	42.9	71.4	26.1	84.4	44.2	52.3
Appropriate brochures[a]	21.4	57.1	39.1	50.0	11.5	29.7
GATHER poster	21.4	42.9	4.3	34.4	2.0	15.0
Number of facilities	14	7	23	32	52	128

[a] Appropriate brochures are defined as at least two copies of each method-specific brochure in all types of facilities. In addition, hospitals providing abortion services should have at least two post-abortion family planning brochures and hospitals providing delivery services should have at least two post-partum family planning brochures.

3.4.6 Availability of IEC materials

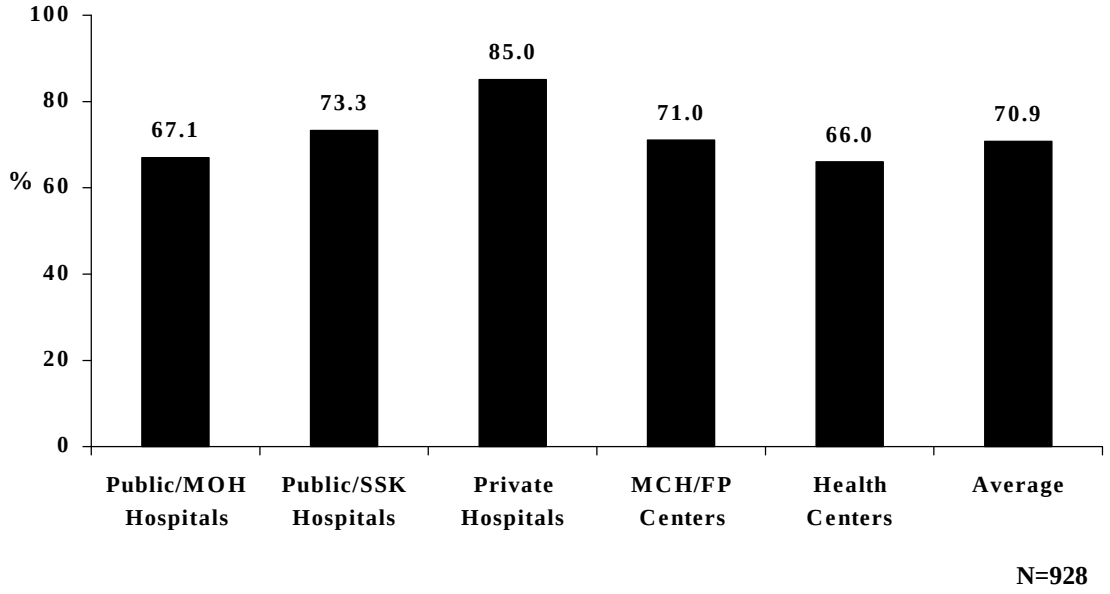
A lot of program effort has been put into preparing high-quality, up-to-date information materials for use by family planning providers and their clients in Turkey. These materials include National FP Guidelines, FP pocket guides and flip-books, method-specific brochures (for IUD, pills, condoms, injectables, tubal ligation, and vasectomy), post-partum and post-abortion family planning brochures, and different types of posters. Table 3.6 shows the percentage of facilities that had each type of IEC material on the day of the facility audit.

More than half of public facilities of all types had the National FP Guidelines and the FP pocket book. FP flip books were also found in more than 40% of all types of public facilities. National Guidelines, FP pocket books, and FP flip-books were found more frequently at public sector facilities than complete sets of brochures and GATHER posters. GATHER posters were the least likely of the IEC materials to be found in all types of facilities. The availability of all of these IEC materials was generally low in the private hospitals surveyed.

3.4.7 Client satisfaction

The client satisfaction indicator used in the Turkey PMP is based on three standards of client satisfaction: (1) client reported she was seated, (2) client reported that she had sufficient time with the provider, (3) client reported that she clearly understood the information provided. Clients were defined as satisfied with the services if they responded positively on all three of these standards. Figure 3.8 shows the percentage of clients who were satisfied with the FP services according to this definition.

Figure 3.8
Client satisfaction with FP services



N=928

Figure 3.9
Selected indicators of client satisfaction with counseling sessions for mystery clients and FP clients

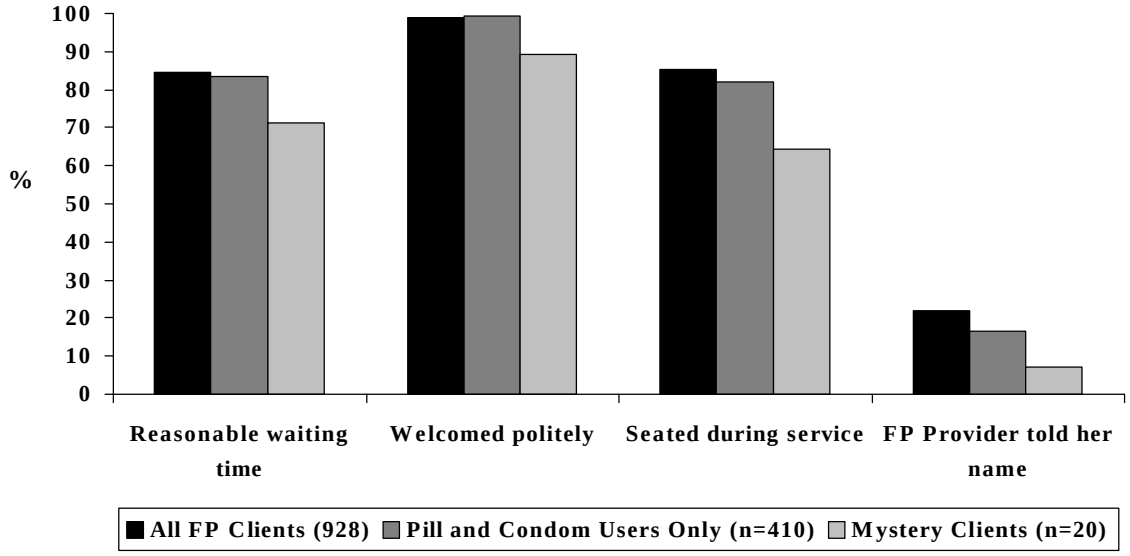
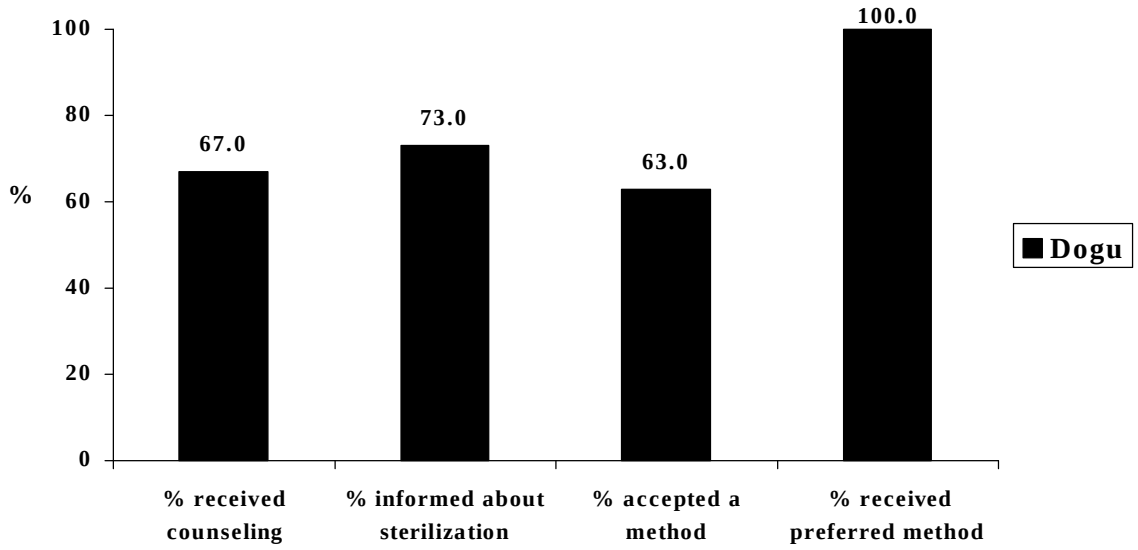


Figure 3.10
Post-abortion family planning services



At least two-thirds of clients reported that they were satisfied with the services in all types of facilities. Client satisfaction was highest in the private hospitals and lowest in the MOH hospitals and health centers.

Information on client satisfaction and the quality of counseling sessions was also obtained from mystery clients. Figure 3.9 shows selected indicators of client satisfaction for mystery clients and FP clients. These indicators are (1) the percentage of clients who reported that the waiting time was reasonable, (2) the percentage of clients who reported that they were welcomed politely, (3) the percentage of clients who reported that they were seated during their consultation, and (4) the percentage of clients who reported that the FP provider told her her name.

More than 80% of FP clients reported a reasonable waiting time, reported that they were welcomed politely, and reported that they were seated during their consultation. Although the general patterns are similar between the two groups, mystery clients consistently reported lower levels of satisfaction on these indicators. Only around 20% of FP clients reported that the provider gave her name. This figure was even lower among mystery clients. The differences between mystery clients and FP clients indicate that the mystery clients are probably more critical than genuine clients, but it may also reflect differences in the types of facilities visited since mystery clients typically visited smaller, lower-volume facilities than genuine clients.[28]

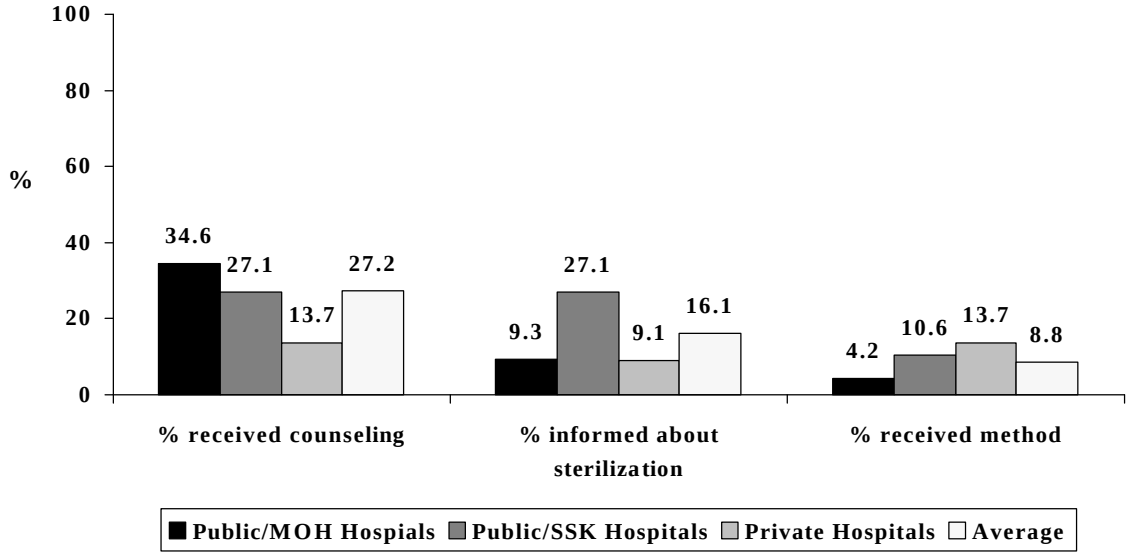
3.4.8 Post-abortion family planning

Abortion is legal in Turkey in the first 10 weeks of pregnancy and is fairly common. Sixty percent of abortions are the result of a contraceptive failure (most often a withdrawal failure)[29] and 43% of women who were using withdrawal immediately before their abortion return to withdrawal imme-

[28] Some support for the latter explanation is given by the fact that in the five sites in which interviews were conducted with both mystery and real clients there was little difference in the responses of mystery and real clients. However, the number of mystery clients in this comparison is very small (n=5).

[29] Ergör, G. and A. Akin. 1996. "Abortion in Turkey" in A. Akin and M. Bertan (eds) *Contraception, Abortion, and Maternal Health Services in Turkey: Results of Further Analysis of the 1993 Turkish Demographic and Health Survey*. Calverton, Maryland: Ministry of Health [Turkey] and Macro International Inc.

Figure 3.11
Post-partum family planning services



diately after the abortion.[30] Given these patterns of behavior, considerable program effort has been invested in improving FP services for abortion clients.

The post-abortion client exit interview in the Istanbul QIQ focused on FP counseling of abortion clients. Four indicators are presented in Figure 3.10: (1) the percentage of abortion clients who received pre-abortion FP counseling, (2) the percentage of abortion clients who want no more children who were informed about sterilization services in the facility, (3) the percentage of abortion clients who left the facility with a modern contraceptive method, (4) the percentage of post-abortion modern contraceptive acceptors who reported that they received their preferred method. The indicators are not presented by type of hospital because of the small number of abortion clients interviewed (n=74). Two-thirds of the abortion clients interviewed reported that they received pre-abortion FP counseling and 63% accepted a modern method of contraception. All method acceptors reported that they received the method they wanted.

3.4.9 Post-partum family planning

Interviews with post-partum clients were conducted at the time of discharge. The survey covered a number of questions on family planning counseling between delivery and discharge. Figure 3.11 presents three indicators on family planning services in the immediate post-partum period: (1) the percentage of clients who received family planning counseling between delivery and discharge, (2) the percentage of clients who did not want any more children who were informed about sterilization services offered in the facility, (3) the percentage of clients who received a contraceptive method or an appointment for a method.

The percentage of post-partum clients who received family planning counseling between delivery and discharge ranges from 14% in private hospitals to 35% in MOH hospitals. Few clients who want no more children were informed about sterilization services in the facility and less than

[30] Ministry of Health [Turkey], Hacettepe University Institute of Population Studies, and Macro International Inc. 1994. *Turkish Demographic and Health Survey* 1993. Ankara, Turkey.

15% of clients received a method or an appointment for a method. This indicator was particularly low in public sector hospitals. One explanation for the low levels of post-partum family planning counseling and method adoption is that many providers in Turkey wait until the six-week postpartum check-up to discuss family planning.

3.5 Programmatic implications and methodological lessons learned

3.5.1 Programmatic implications

The results of the Istanbul QIQ have been used extensively to redefine program priorities and redirect limited resources. The key problem areas identified for program action by the survey were

- Lack of signs and directions at the clinics: only the 17.2% of family planning clinics in Istanbul have permanent signs and directions for FP services.
- Inadequate infection prevention services: the percentage of facilities with adequate infection prevention practices was only 21.5%.
- Poor knowledge level of method users: although, two-thirds of users reported satisfaction with the services they had received, only 12.5% of all users had accurate and complete knowledge of their chosen method.
- Lack of IEC materials and poor IEC distribution system: only 9.4% of family planning clinics have all the required IEC materials.
- Inadequate post-abortion family planning services: only 63% of post-abortion clients received a family planning method before leaving the hospital.
- Inadequate postpartum family planning services: only 9% of postpartum clients received a family planning method or an appointment for a modern method before discharge.

The USAID program and its partners in Turkey have started to address these issues through a number of activities. However, the survey results identified program issues at different levels of the health system. Some can be solved at the facility level without any technical and financial assistance, other issues can only be improved by the Istanbul provincial health directorate without technical assistance, and the CAs community and the USAID country program can help to improve others. In addition, some problems identified can only be addressed by the central MOH through financing or legislation changes or through reforming service provision.

3.5.2 Methodological lessons learned

Overall, the Turkey QIQ has proved an invaluable tool for program monitoring and evaluation and for program planning. Following the successful implementation of the survey in Istanbul, it has been used in two other provinces in Turkey to provide baseline data for new programs, and there are plans for a second survey in Istanbul in May 2000 to monitor progress on the indicators developed. An addition to the later surveys has been the use of handheld PCs for data entry. During the second survey in Kocaeli province in June 1999, four handheld computers were used for data collection and about 40% of the data were entered on them, which speeded up the data processing for the survey.

The data collected by the Istanbul QIQ highlighted some weaknesses in the initial indicators developed for the Turkey PMP. Several of the indicators on the quality of services were based on the percentage of facilities meeting a certain standard. Often these standards required a certain acceptable threshold to be reached (e.g., 90% of post-abortion clients receive FP counseling) or a number of conditions to be met (e.g., facility must meet eight infection prevention standards). When these indicators were calculated, they were often found to have insufficient sensitivity for program monitoring because they provided information on whether a standard was being met, but not on how far from reaching the standard a facility was if it failed to meet it. Therefore, it was not possible to use them to monitor progress toward meeting a standard. As a result, some of these indicators were revised.

Finally, some questions, such as the cleanliness of the facility and the subjective assessment of serv-

ice quality in the facility audit, were found to be too subjective and didn't work very well. These questions were deleted from the later surveys.

3.6 Presentation and utilization of results at the local level

The Istanbul QIQ was designed to be a part of the overall USAID Turkey program and to be conducted annually to measure defined performance indicators for the program. The results of the survey were expected to feed into the annual work plans of the CAs and their counterparts. Thus, it was important to plan how to present and use the results at all levels. Several recipients of the results were identified: USAID, the CAs community, the central Ministry of Health, the Istanbul Provincial Health Directorate, facility managers, hospital directors and family planning clinic staff. Different approaches were identified to reach the different audiences.

At the local level, a set of feedback reports were designed for the local level managers (see Box 1). The number of exit interviews conducted per facility ranged from 0 to 35. Under these circumstances, it was decided to aggregate the exit interviews and present the results only by facility type. Therefore, the feedback reports were based on the facility audit, which provides comparable data for all facilities in the study. Several issues were considered during the design of feed-back reports. Specifically, the local managers should be able to

- find the results for their own clinic
- understand the standards set for particular indicators
- understand how it was measured
- compare their facility with other facilities of the same type
- compare their facility with the average scores of different facility types
- compare their facility with the average scores of Istanbul

A PowerPoint presentation was prepared to accompany the feedback reports and a series of meetings were organized to present the results to the Istanbul health community. All the managers from the provincial directorate and from all the hospitals, MCH/FP Centers and Health Centers surveyed were invited to the meetings. Survey staff, supervisors, auditors, interviewers and data entry staff were also invited.

After the presentation of the results and the sharing of the feedback reports, the participants discussed the results, the problems identified and next steps. The vast majority of the participants expressed great interest in the results. The general consensus was that it was the first and only real feedback that they had ever received on their status and performance. During the meetings the participants decided to establish three voluntary working groups on infrastructure, quality, and PP/PA services. These groups have started to meet regularly to discuss the results in detail, make suggestions for improvement and share best practices for improvement. This is a local initiative that is not directed by local authorities. It is working mainly with the Istanbul provincial health directorate to provide solutions and expand options for the decision making process. Naturally, after the first excitement there were dropouts, but these volunteer groups were able to meet three times in the six months following the survey.

The second major user of the results was the CAs community. Four CAs in Turkey, AVSC, MSH/FPMD, JHPIEGO and The Futures/Policy, started in-depth analysis of the results. An annual planning/benchmarking workshop was organized jointly with counterparts from the MOH and SSK. During the workshop CAs and their partners set annual targets for the PMP indicators for Istanbul based on the survey results and prepared their implementation plans accordingly.

Box 3.1 Sample Feed-Back Report for Facilities Surveyed in the 1998 Istanbul QIQ

VISIBILITY
Permanent signs indicating the availability of FP services should be posted in each of the following three places:

1. Outside the building
2. Inside the building
3. On the door of the FP clinic

	PERMANENT SIGN		
State Hospitals	**Outside the building**	**Inside the building**	**On the door**
Haseki	-	+	+
Haydarpasa Numune	-	-	-
Kartal	-	+	+
Semiha Sakir Maternity	-	+	+
.....	-	-	-
.....	-	+	+
Average for State Hospitals (%)	**0.0**	**43.0**	**50.0**
Average for Istanbul (%)	**35.9**	**30.5**	**50.4**
Percent of the facilities that have all three signs was : 17.2 %			

Chapter IV

Quick Investigation of Quality of Family Planning and Antenatal Care Services in Uganda

Ruth E. Bessinger

Charles Katende

4. Quick Investigation of Quality of Family Planning and Antenatal Care Services in Uganda

4.1 Introduction

4.1.1 Overview of the field test in Uganda

In the past decade, the government of Uganda has made tremendous progress towards addressing needs in population and health. However, national fertility levels, though decreasing, remain high and the use of modern contraceptive methods remains low. The 1995 Ugandan Demographic and Health Survey (UDHS) estimated the total fertility rate as 6.9 births per 1000 women and the current use of modern contraceptive methods as 7.8%, with a range from 35% for women in Kampala to a rural average of 5%. Infant and child mortality rates are also high, and maternal mortality is estimated to account for 17% of all deaths among women aged 15-49. Some 15% of the adult population are estimated to be infected with the human immunodeficiency virus (HIV). Other sexually transmitted diseases are also prevalent. Gonorrhea and chlamydia are the major causes of pelvic inflammatory disease while maternal syphilis is generally considered to be the major cause of spontaneous abortion, stillbirth and prematurity in the country.

Primary health care and prevention, including family planning, HIV prevention and maternal and child health services, is a priority of the Ministry of Health of Uganda.

The five-year Delivery of Improved Services for Health (DISH) project, sponsored by the Ugandan Ministry of Health and the United States Agency for International Development (USAID), aims at improving the quality, use and sustainability of reproductive health services, as well as promoting positive behavior change related to reproductive, maternal and child health. The program conducts information, education and communication activities (IEC); trains service providers; and strengthens health management systems. Started in 1994, the DISH project is one of the largest reproductive, maternal and child health projects in Uganda and operates in 12 of the country's 45 districts in which nearly 35% of the population reside. The DISH project is managed by Pathfinder International and its three partner organizations: Johns Hopkins Center for Communication Programs (JHU/CCP), University of North Carolina Program for Training in Health (INTRAH) and E. Petrich and Associates.

One of the primary activities of the DISH project is the training and supervision of nurses and midwives to equip them with skills needed to provide quality reproductive health services in an integrated fashion. In an integrated service delivery setting, all of the services that the client needs are provided during the same visit and often from the same provider. In DISH project areas, nurses and midwives are trained to provide family planning, maternal and child health care, sexually transmitted disease counseling and care, HIV counseling, antenatal care, postnatal care, and immunization services.

DISH project activities and changes in reproductive and maternal-child health knowledge and behavior in project districts are monitored using a household sample survey of men and women of reproductive age. A facility survey monitors the availability of health services. The first round of these surveys was conducted in late 1997 and the second in late 1999. Although these surveys provide important information on access to and availability of services, as well as knowledge and reproductive health practices in the population, they provide little insight into quality of such services.

The field test of the quick investigation of quality (QIQ) provided the DISH project with an opportunity to assess and evaluate the quality of reproductive health services in focus districts. Although the QIQ methodology was initially designed to assess the quality of family planning care, the DISH project invests in a broader range of reproductive and maternal-child health services. Given this wider focus, the methodology was expanded to assess the quality of antenatal care in addition to family planning. In order to evaluate quality of care in DISH facilities, the study was conducted

in a sample of 50 health facilities in ten DISH districts as well as 22 health facilities in three non-DISH districts for comparative purposes. The primary objective of study was to provide information on the quality of care of family planning and antenatal care services in both DISH and non-DISH districts for program evaluation and improvement. The survey was conducted by the MEASURE *Evaluation* Project of the Carolina Population Center, University of North Carolina at Chapel Hill in collaboration with Pathfinder International, and was funded by USAID/Washington. This study was approved by the Institutional Review Board (IRB), Macro International.

4.1.2 Adaptation of instruments to local needs

Modifications to the standard QIQ data collection instruments were made to meet the needs of the DISH project. Instruments were adapted to the local program context, and the family planning instruments were redesigned to assess quality of antenatal care services. In the clinical observation guide, questions were added to assess whether providers had been trained by the DISH project, whether facilities displayed the project signposts, and whether information, education and communication (IEC) materials were shown or given to the client. As IUD use is relatively rare in Uganda (the contraceptive choice of less than 1% of currently married women), the guide did not include observation of an IUD insertion. There was an additional informed consent statement, which required documented informed consent from the client for the observation and exit interview. For exit interviews, questions were included regarding the IEC materials used by the provider during the visit. Further inquiries for the client to identify other health topics discussed or services received during the family planning visit were designed to assess integration of services**.**

With respect to the adaptation of family planning instruments for antenatal care clients, questions were added to the observation guide to assess appropriate counseling information, signs of a complicated pregnancy, nutrition, breastfeeding and post-partum contraceptive use. For the clinical observation**,** questions were introduced to assess the use of pregnancy monitoring tests.

A facility audit, the third component of the quality of care methodology, was not implemented in Uganda because a similar exercise had already been carried out in the previous year as part of an evaluation survey.

4.2 Sampling

4.2.1 Definition of the sampling framework

The present study draws on data collected from a sample of family planning and antenatal care clients visiting health facilities in ten DISH project districts (Kampala, Jinja, Kamuli, Luwero, Masindi, Masaka, Rakai, Mbarara, Nakasongola, Ntungamo) as well as in three non-DISH districts (Kibaale, Mpigi, Iganga). Due to a relatively low contraceptive prevalence rate in Uganda, the sampling methodology was designed to maximize the number of family planning clients in the sampled facilities.

A listing of all health facilities, both public and private, was obtained for each district. This listing included hospitals, health centers, clinics, dispensary maternity units, and dispensaries. Data from the health information system supplemented with information from district medical offices were used to estimate the average monthly family planning client volume per facility. Only those facilities with a minimal average of 22 or more family planning clients per month (one per weekday) were retained in the sampling frame. These facilities represent approximately three-fourths of all health facilities in the study districts.

Survey sampling techniques targeted the total number of family planning clients needed in the final sample at 650 (450 in DISH district facilities and 200 in non-DISH district facilities). This calculation was based on minimum sample size requirements required to detect a statistical differential of 10 percentage points in a given indicator between rounds of the survey with 95% significance. As a larger volume of antenatal care clients is expected, sample size based on the number of family planning clients alone would be more than sufficient for analyzing indicators of the quality of antenatal care services.

4.2.2 Methodology used to select facilities

First, the number of family planning clients to be surveyed per district was determined according to its proportion of all family planning clients in DISH and non-DISH areas. Health facilities were then randomly selected with selection probabilities based on their expected family planning client volume. Facilities were drawn until reaching half of the expected number of clients in each district. Spending two days at each facility would then result in the total desired target sample size.

Sampling using probability proportional to client volume made data collection more efficient by focusing efforts on those facilities more likely to produce family planning clients. At the same time, a sufficient number of low volume facilities are still retained in the sample to maintain representation of the variety of facility types.

Moreover, extending the survey over two days at each location facilitated the logistics of transporting data collection teams, particularly in rural areas. Proposed visits to the various health facilities were further timed to the day of the week coinciding with greatest expected volume of family planning clients.

4.2.3 Procedures for selecting clients within facilities

Two days were spent at each sampled facility using a take-all strategy in order to cover the required number of clients per district. All family planning and antenatal care clients who received services during the two-day period of observation were included in this study. All of the clientele were women of reproductive age.

As previously mentioned, the sampling strategy used assumes that the health facilities, initially selected according to expected family planning client volume, will also be approximately representative of those providing antenatal care. Thus antenatal client volumes were also compiled as part of the data collection process so that empirical results can be weighted during analysis to correct for errors in this assumption.

4.3 Field Work

4.3.1 Recruitment and training of interviewers and observers

Forty-four qualified midwives, nurses, clinical officers and advanced medical students were initially recruited as potential observers. Candidates were briefly trained on the observation guides and then asked to evaluate a mock client-provider interaction. The 22 individuals who were most accurate in completing the guide were retained as observers. Another 20 surveyors for exit-interviews were selected based on their credentials and past experience as interviewers for other surveys. The interviewers were primarily recently graduated social workers and sociologists. All data collection staff was female.

The observers and interviewers underwent a preliminary four-day in-class training in Kampala. The training consisted of the following components: an overview of study objectives and data collection instruments; a question-by-question review of the instruments; role-playing sessions to practice observation and interviewing skills; and discussions of characteristics of good observers and interviewers, data quality issues and protocols for the field.

The data collection instruments were reviewed during the training and subject to modifications in response to comments from the observers and interviewers. Questionnaires for the exit interviews, which had previously been translated into three local languages (Luganda, Runyoro and Runyankole), were also reviewed during the training and refined as necessary.

A pre-test was conducted over a two-day period as part of the training in ten health facilities in Mukono, a district not included in the final survey. The pre-test provided the field staff with experience in using the data collection instruments and familiarized them with field procedures. Afterwards, the observers and interviewers assembled for the final day of training where results from the pre-test were discussed and the instruments were finalized.

4.3.2 Organization of teams

For most sampled health facilities, one interviewer and one observer were sent to each location. Because client volume is generally quite low, a two-person team was usually sufficient to survey all family planning and antenatal care clients attending the facility on the day of the survey. For larger facilities, one team was assigned per provider. A lesson learned during field work was to assign multiple exit interviewers to observers of antenatal clients at large hospitals as these clients often spent only a short time with the provider. The interviewer would be still conducting the interview with the previous client when the next client finished her session with the provider. Additional interviewers prevented a backlog of clients waiting to be interviewed.

Observers obtained informed consent from the provider and the client for both the observation and the exit interview. At the conclusion of the provider-client session, the observer would usually accompany the client to the interviewer to ensure continuity of the study. The observer would then provide the interviewer with the client identification number so that both questionnaires would have matching ID codes. In cases where the observer was not able to accompany the client, she would provide the client with an identification number in writing and direct her to the interviewer's location.

Each supervisor was assigned three to five data collection teams. Supervisors were responsible for meeting with the district medical officer and coordinating all data collection activities within the district. They ensured that the teams arrived at the facility on time and with all necessary materials. They met with the person in charge of the facility to explain the study and obtain consent. Supervisors moved between facilities during the day to observe the data collection process and resolve any problems as they arose. At the end of each day, the supervisor reviewed the completed observation guides and exit-interview questionnaires for consistency and errors.

4.3.3 Data entry and control of data quality

Epi-info data-entry screens and check files were adapted for the Ugandan versions of the data collection tools. The computer programs were evaluated using questionnaires completed during the pre-test and revised as necessary. Five data entry staff were trained and supervised by DISH project staff. The open-ended questions on the exit interviews were pre-coded prior to data entry. Information was double entered to minimize data entry error.

4.3.4 Duration of field work

Fieldwork was conducted in two phases from March 12 to April 20, 1999. Fieldwork progressed on a district-by-district basis to facilitate transportation and supervision of field teams.

4.3.5 Difficulties encountered

A few difficulties encountered during the fieldwork are briefly discussed here.

Identifying the most appropriate day during the week to visit a health facility was sometimes challenging. Although services are integrated at most facilities and family planning is now offered every day, in many locations there was traditionally only a single day when family planning services were provided. Consequently, clients continue to come on this one day to obtain family planning. In order to ensure a sufficient number of clients surveyed, the fieldwork needed to coincide with the particular day of the week when more family planning clients were expected. Often this required a trip to certain facilities ahead of time to document the service history, as this information was not available at the district level.

A related issue is the scheduling of the survey during regular working hours. Although field staff arrived at the health facilities early in the morning and stayed until the end of the workday, some clients were missed as they came later in the evening, particularly in rural areas. Many women work in their fields all day, especially during the rainy season. Others may choose to come only after dark to avoid being seen when seeking family planning services.

Although the survey design required a representative sample of facilities and clients within districts, in a setting such as Uganda where contraceptive prevalence is extremely low, it was diffi-

cult to obtain a sufficient number of family planning clients. In many health facilities, there were few or no family planning clients who sought services during the survey visit. Data collection teams often spent an entire day at a location without surveying a single person. Not only is this a sampling methodology issue, but it was also found to be somewhat demoralizing for the field staff who did not gain a sense of accomplishment at the end of the day.

Lastly, another major difficulty encountered in the fieldwork was the potential effect on the provider's attitude and conduct with clients caused by the presence of the survey team. Although all facility staff was assured that observation records would remain confidential, some providers may have felt that this was a supervisory visit rather than a research activity that would not involve feedback to management. They may have been ill at ease or have put on a show to impress the data collection team, leading to biased observations from the everyday norms.

4.4 Family planning results

4.4.1 Background characteristics

A total of 380 family planning clients visited the sampled facilities located in DISH project districts and 160 those facilities in non-DISH districts on the days designated for data collection. Of the 540 total in the survey, 141 (26%) were new clients. They included clients who came to the facility to receive a contraceptive method for the first time, were re-starting a method after not having used one for six months, or were new to the particular facility.

4.4.2 Facility characteristics

In DISH districts, 50% of the family planning clients received services at government-managed facilities, 28% at Family Planning Association of Uganda (FPAU) clinics, 7% at facilities run by other non-governmental organizations (NGO), and 15% from other types of health facilities (for example, programs administered by church or missionary groups and private clinics). In the comparison districts, the distribution by type of facility differed somewhat. A larger percentage, 69%, of family planning clients received services from a government health facility, whereas 18% received services from FPAU clinics and 13% from facilities run by other NGOs (Figure 4.1).

Overall, one-third of all family planning clients received services in facilities located in urban areas (encompassing Kampala and other major town centers). Thirty percent of clients in DISH districts received services at clinics (mostly FPAU-sponsored and a few other NGO, another 29% in hospitals (essentially government), and 20% in health centers (mostly government). Few obtained services at dispensary maternity units (DMUs) or dispensaries. In the comparison districts, the largest percentage of family planning clients received services at hospitals (35%), followed by dispensaries (20%), clinics (18%), health centers (12%), and DMUs (9%).

4.4.3 Provider characteristics

As presented in Figure 4.2, the type of provider seen by family planning clients varied somewhat across visitors in DISH versus non-DISH districts. Clients in DISH districts were more likely than those in non-DISH districts to be seen by a nurse-midwife (19% vs. 11%) or a midwife (59% vs. 48%).

The DISH project conducts training on providing integrated reproductive health services for nurses and midwives. In DISH districts, seventy percent of family planning clients who were seen by a nurse, midwife, or nurse-midwife were seen by one who had received training from the DISH project. (A few providers in the comparison districts may also have received prior training under the same project.)

4.4.4 Client characteristics

Almost all of the family planning clients were married and were, on average, 28 years of age. The women had an average of three children each and only two percent had never given birth. Forty-eight percent of these family planning clients indicated they would like to have another child in the future, 48% said they wanted no more children, and 4% were not sure. Among those wanting more children, most (67%) expressed a desire to wait two or more years before having another birth (Figure 4.3).

Figure 4.1
Percentage distribution of family planning clients by type of health facility visited

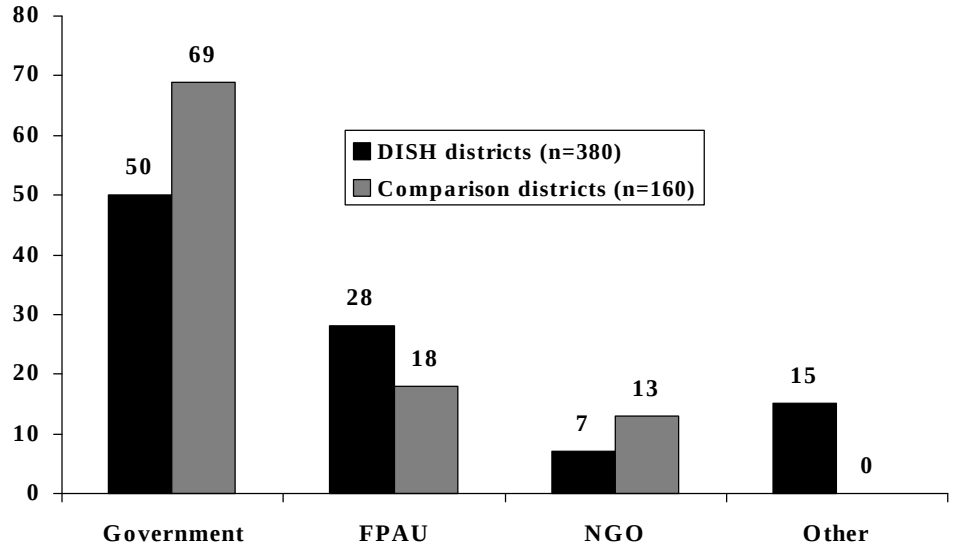


Figure 4.2
Percentage distribution of family planning clients by type of provider seen

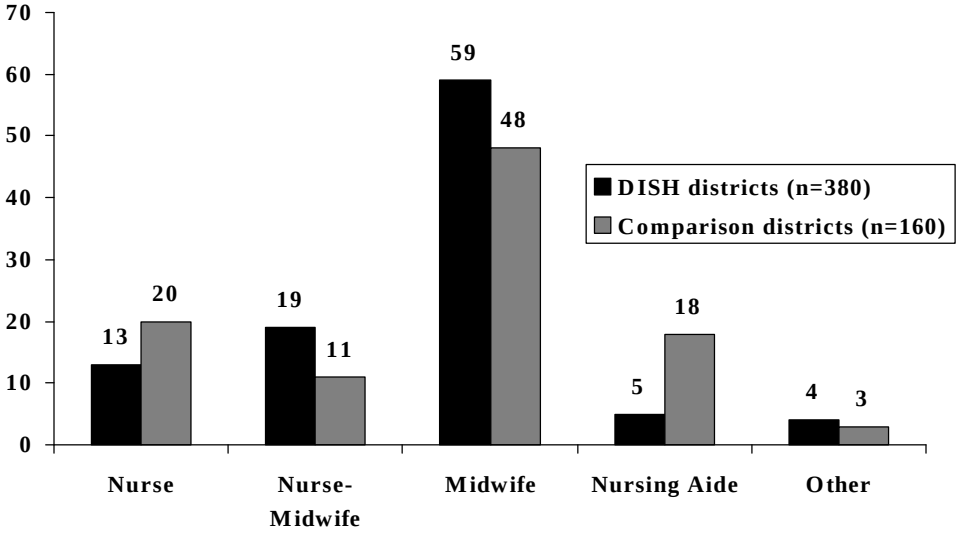
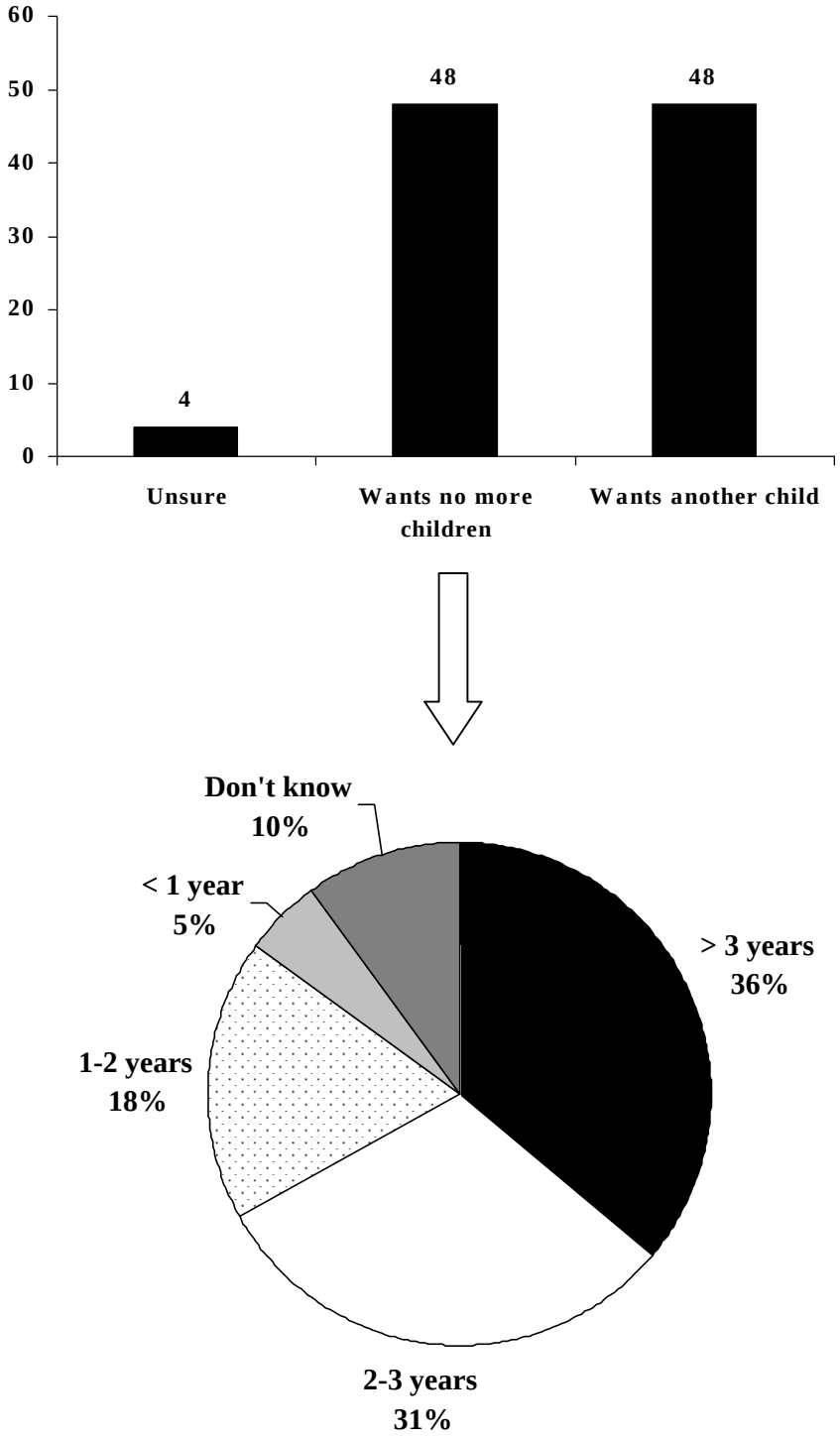


Figure 4.3
Fertility intentions of new family planning clients (n=141)



4.4.5 Counseling session services and care

Provider actions during counseling

High quality client-provider interaction depends on good interpersonal relations between the client and the provider, as well as the provider's ability to create an environment where the client is comfortable taking an active role in her care. A profile of provider actions, as observed during the counseling sessions with family planning clients, is presented in Figure 4.4. During most interactions, the provider treated the client with respect, asked open-ended questions, and encouraged the client herself to ask questions.

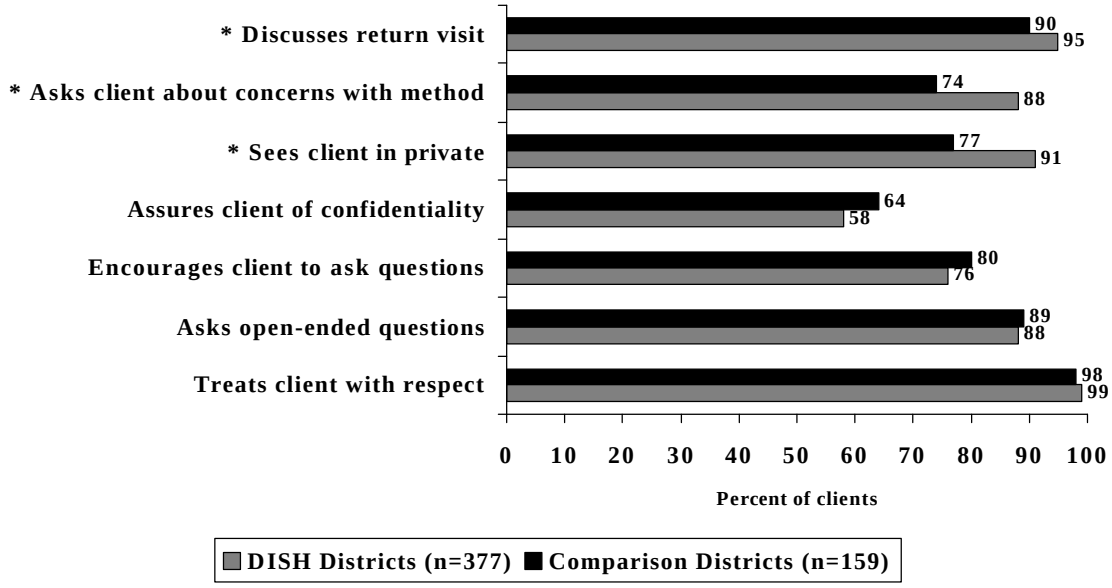
In DISH districts, the provider discussed a return visit with 95% of family planning clients, an issue considered very important for encouraging contraceptive continuation. Eighty-eight percent of clients were asked if they had any concerns with a contraceptive method. While a strong majority (91%) were seen in private, only 58% were assured by their provider that the information collected during the session would remain confidential.

Some significant differences in provider actions were noted with respect to DISH and comparison districts. In comparison districts, the proportion of clients with whom a return visit was discussed was lower (90%), as was the number asked if they had any concerns with the contraceptive method (74%). Clients in the comparison districts were also less likely to be seen in private (77%).

Information exchange

Information collected from a family planning client is important in identifying the most appropriate contraceptive method for her specific needs. The assessment should include information on her medical history, breastfeeding status, partner's attitude towards family planning, fertility intentions, and potential exposure to sexually transmitted disease (STDs) and the human immunodeficiency virus (HIV). Although some areas may not be discussed in all cases, either because the information appears in the client's medical record, or the provider and client are already acquainted, it is expected that most should be discussed particularly when clients come for services for the

Figure 4.4
Provider actions with all family planning clients observed during the counseling session



*p<0.05

Table 4.1. Percent of new family planning clients who discussed topics related to contraceptive needs assessment with the provider during counseling

	Percent Discussed	
Topics	*DISH Districts (n=91)*	*Comparison Districts (n=51)*
Past family planning use	92	88
Date of last menstrual period	92	88
Number of living children	86	88
Current age of client	79	73
Marital status	79	75
Breastfeeding status	57	57
Current pregnancy status	53	47
Desire for additional children	48	69
Partner's attitudes toward FP	43	49
History of STDs and HIV/AIDS	40	33
Timing of next child	37	55
History of pregnancy complications	23	12
Partner's sexual activity	8	16
Multiple sexual partners	7	10

* denotes a statistically significant difference between DISH and non-DISH, $p<0.05$

first time. Table 4.1 presents a compilation of the coverage level of 14 pertinent information topics assessed during the observation of client-provider interactions with new family planning clients.

As seen in Table 4.1, most new clients conversed with the provider regarding past family planning use, date of last menstrual period, number of children, current age and marital status. However, in DISH districts, in only 48% of interactions was the client's desire for additional children discussed, and in only 37% the timing of the next child. These proportions are significantly lower than those found in the comparison districts (69% and 55% respectively). On the other hand, the client's history of pregnancy complications was nearly twice as likely to be covered in DISH than non-DISH districts (23% versus 12%).

Overall, the risk of STD and HIV infection is not considered to have been sufficiently addressed. Although the personal history of STDs and HIV/AIDS was discussed with 40% of new clients in DISH districts, fewer than one in ten were asked about their partner's sexual activity and whether they themselves had multiple partners. Figures for the comparison districts were not significantly different.

An information exchange index was calculated based on 14 items that were to be discussed with new clients. The index summarizes the coverage level of items discussed with the provider during the counseling session. In 57% of new cases (n=142), the provider touched on the complete list of 14 items (data not shown). Globally, almost all of the information collected was solicited from the provider. Fewer than half of new clients initiated discussion on any individual topic.

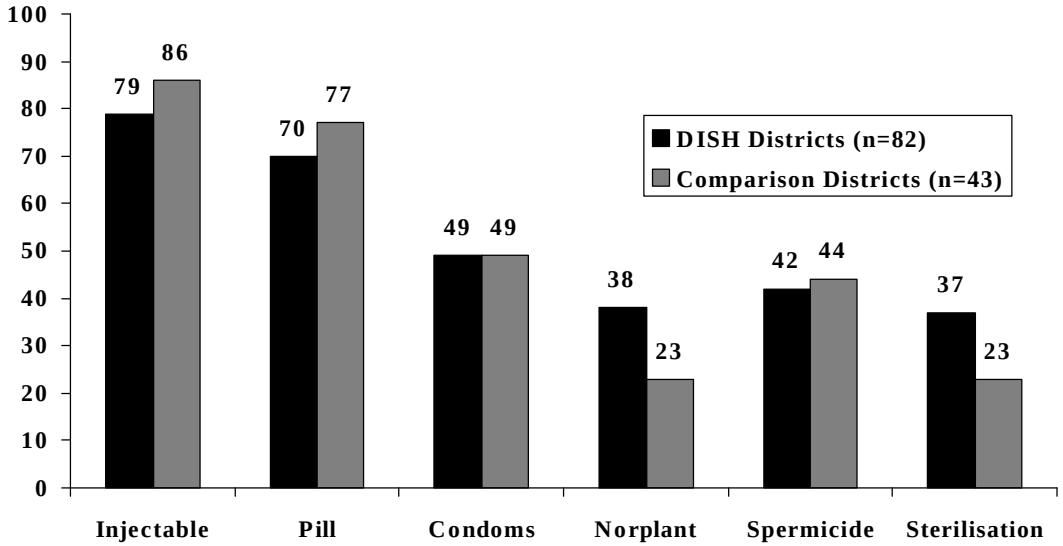
Methods discussed

Method choice is one of the key elements of a quality family planning program. In interactions with new family planning clients, the provider discussed an average of three contraceptive methods. Observers recorded that providers were most likely to mention the pill and the injectable. Other modern methods—condoms, IUD, sterilization, Norplant, spermicide—were each discussed with less than half of new clients. There were no significant differences in the type of methods discussed during counseling with clients in DISH and non-DISH districts (Figure 4.5A). Note, however, that information on methods discussed was recorded only for new clients who received a method during the visit.

Availability of the various methods at a given health facility may influence the number and type of methods discussed with the client. While such information was not collected in this study, data from a previous DISH facility survey in Uganda indicate that IUDs are available primarily at FPAU and other NGO facilities, whereas sterilization and Norplant are mainly available at hospitals.

It should also be noted that during DISH training, providers are instructed to concentrate on the client's preferred method during the counseling session, given that an overview of family planning methods should have been addressed during group talks. Results from the exit-interviews indicate that new family planning clients received information on a wider variety of methods during the course of the whole facility visit than what was recorded only during individual counseling (Figure 4.5B). In fact, a significantly larger percentage of new clients in DISH districts reported receiving information on Norplant and condoms than those in comparison districts, once group talks were considered.

Figure 4.5A
Methods discussed with new family planning clients during counseling

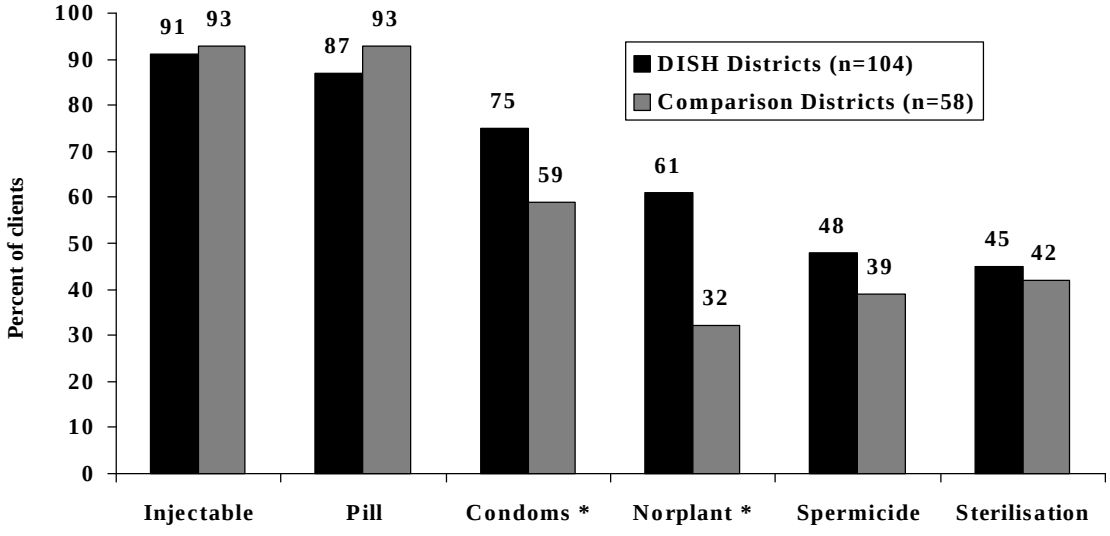


Method preference

Observers of the client-provider interaction were trained to record whether the family planning client had a preferred method in mind when she arrived at the health facility. The overall distribution of method preferences among new family planning clients was not significantly different between DISH and non-DISH districts, although some divergence was noted with respect to the two most popular methods, the injectable and the pill (Figure 4.6). The injectable was the preferred method for 67% of new clients in DISH districts and 53% in comparison districts. Conversely, the pill was initially preferred by 33% in comparison districts and only 17% in DISH districts. Few clients arrived at any health facility for the first time with a preference for other family planning methods.

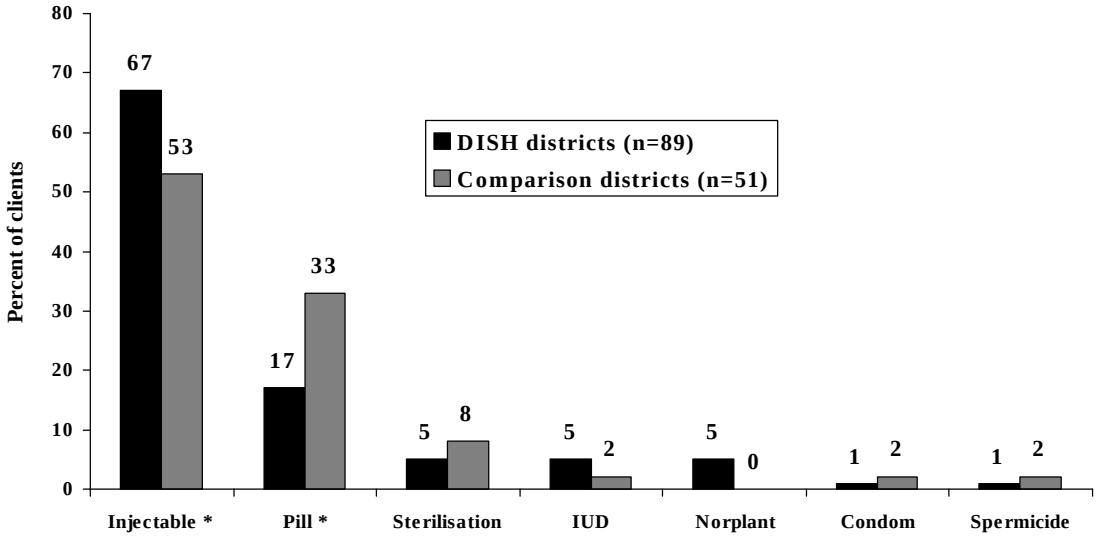
Information on a particular method tended to be provided during the counseling session in those cases in which the client had initially indicated a preference for that method. For example, 94% of new clients indicating a preference for the injectable discussed the method with the provider. In contrast, clients having indicated a preference for another method discussed injectables in only 60% of sessions with the provider. A similar pattern emerges for the pill. The pill was discussed with 96% of new clients who indicated an initial preference for this method, as compared to 66% of new clients who preferred a different method.

Figure 4.5B
Methods discussed with new family planning clients over the course of visit



*p<0.05

Figure 4.6 Method initially preferred by new family planning clients



*p<0.05

Method received

Of those new family planning clients who had initially expressed a preference, the proportion that actually received their preferred method was greater in DISH than in non-DISH districts (Figure 4.7). Reasons for not receiving the preferred method varied. In DISH districts, the main reasons cited by clients were that the method was not available at all at the facility (26%), that she was referred to another source or clinic for the method (16%), or the provider recommended a different method (16%). Smaller proportions (some 10%) cited that the method was not available that day or was not considered appropriate for her specific needs. In comparison districts, the primary reason that new clients did not receive their preferred method was because it was not available that day (45%). The other main reasons were that the client was referred to another source or clinic (30%), was recommended another method by the provider (25%), or understood that the method was not available at all (15%). (Note that these figures may reflect multiple responses and should be interpreted with caution as the sample size is small, fewer than 40 in both types of districts combined.)

Overall, most (90%) new family planning clients received or were referred for a contraceptive method. (The lack of an appropriate provider, change of mind, or failure to make a family planning decision during the visit could be among the reasons for those few who did not.) Injectables and pills predominate as the major contraceptive methods distributed to new clients in the districts surveyed (Figure 4.8). In DISH districts, among those who received a method, 67% received the injectable and 23% the pill. In non-DISH districts, injectables were given to 51% of these clients and the pill to 37%. Few new clients in either type of district received or were referred for the IUD, Norplant, spermicides or sterilization.

Provider actions with new acceptors

During encounters with new family planning acceptors, providers are expected to disseminate adequate and accurate information about the chosen contraceptive method. A profile of provider actions that were observed with new family planning clients is presented in Figure 4.9. In almost all encounters (nearly 95%) the provider was judged as having given the client accurate information on how to use the selected method, and in 85% of instances information on the potential side effects of the method.

Among those new clients who expressed an initially preferred method, in some three-quarters of the cases the provider tried to determine the reason for such preference. With respect to methods other than condoms, the provider explained that the method would not protect against HIV infection or STDs, and encouraged dual-method use, among fewer than half of the new clients. Providers may limit discussion of condoms to clients found to have an STD or those reporting their male partners are not opposed to family planning. It should be considered routine, however, to inform all new clients not receiving a barrier method that the method does not protect against infection with STDs or HIV.

Figure 4.7.
Percent of new family planning clients who received or were referred for their preferred method

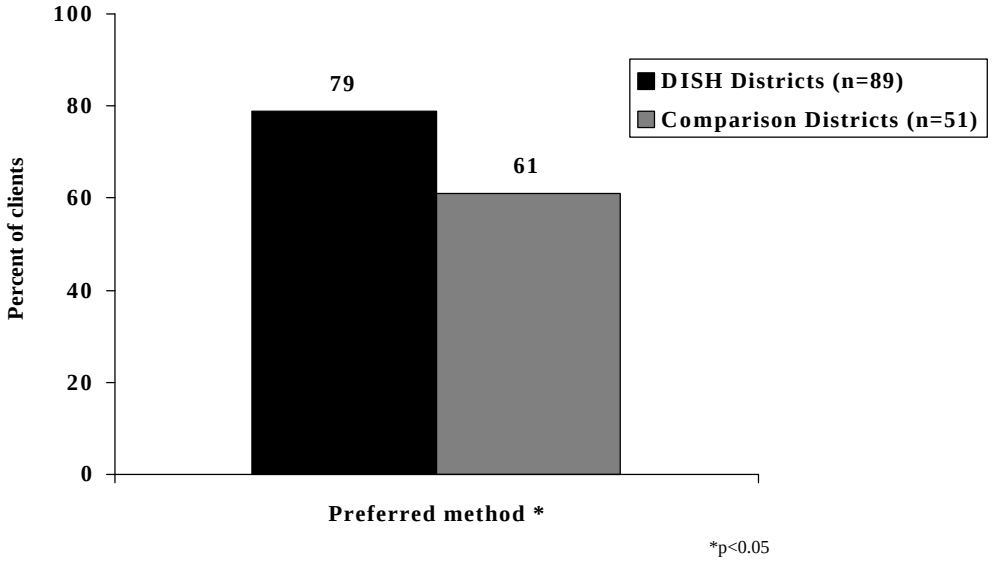
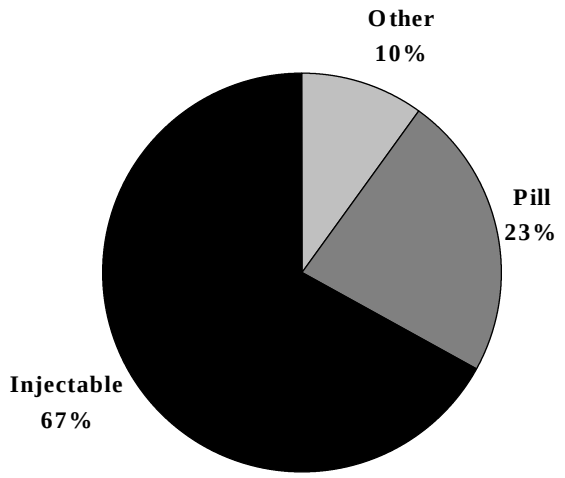
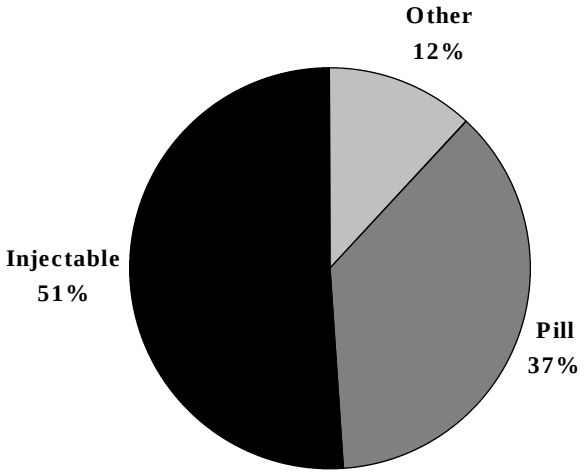


Figure 4.8
Method mix among new family planning clients who received or were referred for a method



DISH Districts (n=79)



Comparison Districts (n=41)

There were no significant differences between provider actions with new family planning acceptors in DISH and comparison districts.

Problem assessment with continuing clients

Whether the client is experiencing problems with her family planning method is an issue that should be clearly addressed during revisits to health facilities. During exit-interviews, returning clients were surveyed whether the provider asked her if she was experiencing problems, and if so whether the provider addressed the situation. Most family planning users attending a follow-up visit indicated the provider had asked about method problems: 87% in DISH districts and 83% in comparison districts (Figure 4.10).

Among all continuing clients, half (49%) reported actually experiencing a problem with their method. The most commonly reported problems were heavy bleeding (28%), irregular menstrual periods (24%) and abdominal pain (16%). Such problems were not distinctly associated with either of the predominantly used methods (the pill and injectables).

Among clients experiencing a problem, overall most providers discussed the problem with them; however, those in DISH districts were significantly more likely to have offered suggestions for resolving the problem than in comparison districts (83% of cases versus 65%). Almost all clients who received advice expressed satisfaction with that advice.

4.4.6 Technical competence

Compliance with clinical guidelines

The technical competence of a provider can be measured by adherence to standard clinical guidelines and infection control practices. Technical competence was observed during the client-provider interaction for clients receiving the injectable as well as for those who underwent a pelvic examination.

Figure 4.9
Provider actions with new family planning acceptors

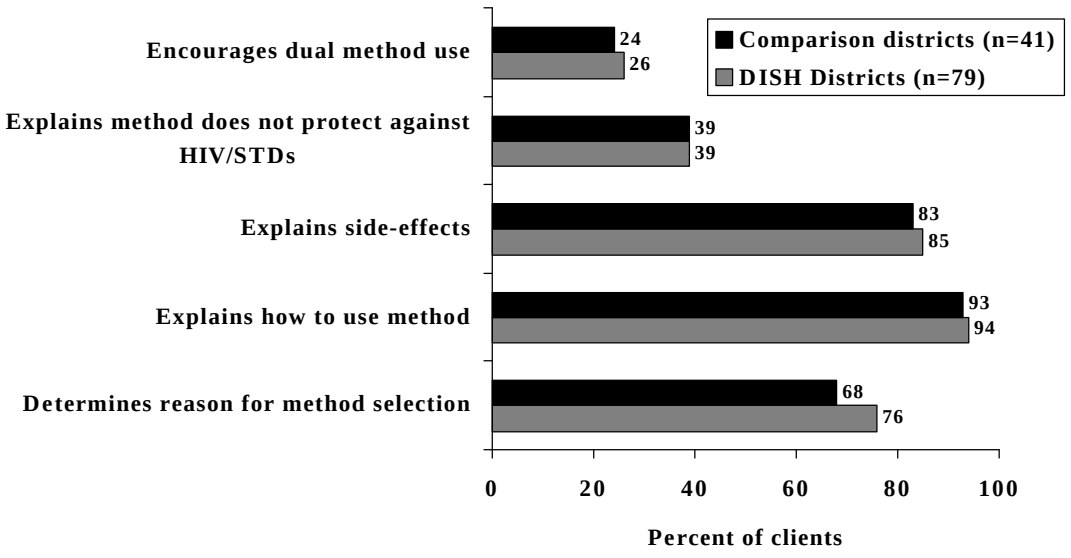
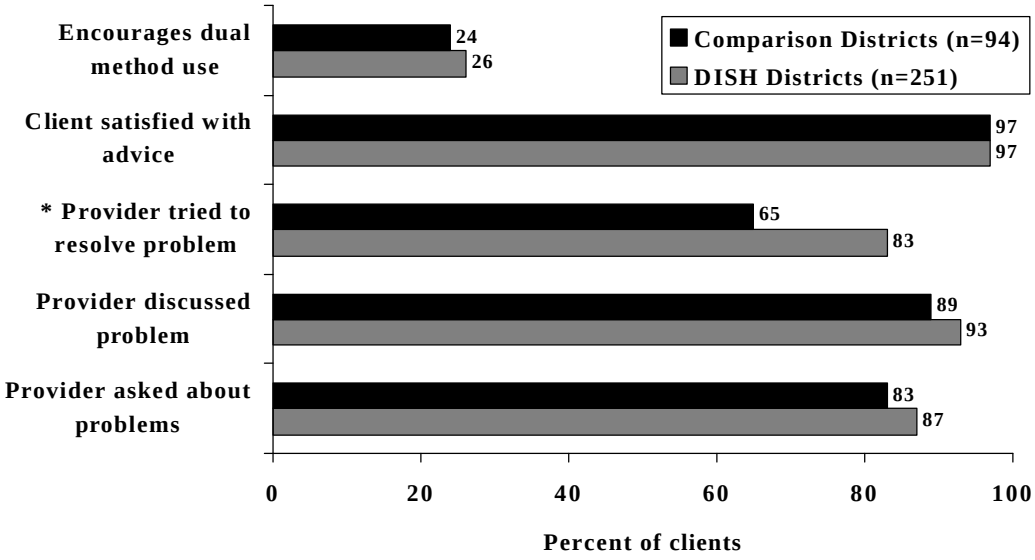
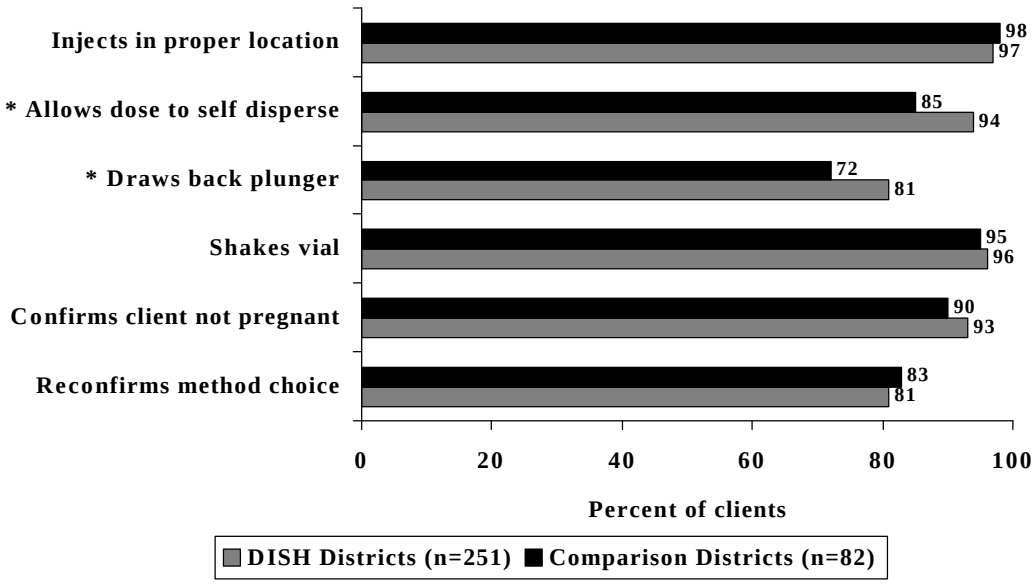


Figure 4.10
Provider actions for resolution of problems among continuing family planning users



*p<0.05

Figure 4.11
Provider compliance with clinical guidelines when administering injectable contraceptive



*p<0.05

Clinical guidelines for administering the injectable involve confirming the client was not pregnant, reconfirming her method choice, shaking the vial containing the dose, drawing back the plunger before the injection, injecting in the upper-outer quadrant for gluteal injections, and allowing the dose to self-disperse. Compliance with each of the clinical steps was generally high among clients receiving this family planning method (Figure 4.11). Two steps – drawing back the plunger before the injection and allowing the dose to self-disperse – were more frequently noted in DISH districts. Overall, however, only 53% of injectables given in DISH districts and 51% given in comparison districts complied fully with clinical guidelines (6 of 6 steps conducted correctly).

Only a few pelvic examinations were observed during the course of the study, 35 in DISH districts and 4 in comparison districts. Of interest, however, is that significantly more clients received a pelvic examination in DISH districts, 9% of all clients and 12% of new clients, as compared to 3% and 2% respectively in non-DISH districts. Moreover examinations in DISH districts appear to better comply with clinical guidelines, although caution is warranted due to the small number of observations. Three of the four recommended steps were more frequently observed in DISH districts – preparation of instruments before the examination (48% vs. 25%), inspection of the external genitalia (98% vs. 25%), and explanation of speculum insertion procedure (64% vs. 50%). The only item rated lower in DISH districts was asking the client to take slow, deep breaths and relax muscles (48% vs. 75%).

Infection control practices

Infection control guidelines during the administration of injectables entail that the provider should (1) wash her hands before the procedure, and (2) clean and air-dry the injection site. While compliance was slightly higher in DISH districts for both steps, as shown in Figure 4.12, absolute scores for hand washing were low (in only a third of all injections did the provider wash her hands

Figure 4.12
Provider compliance with infection control practices when administering injectable contraceptive

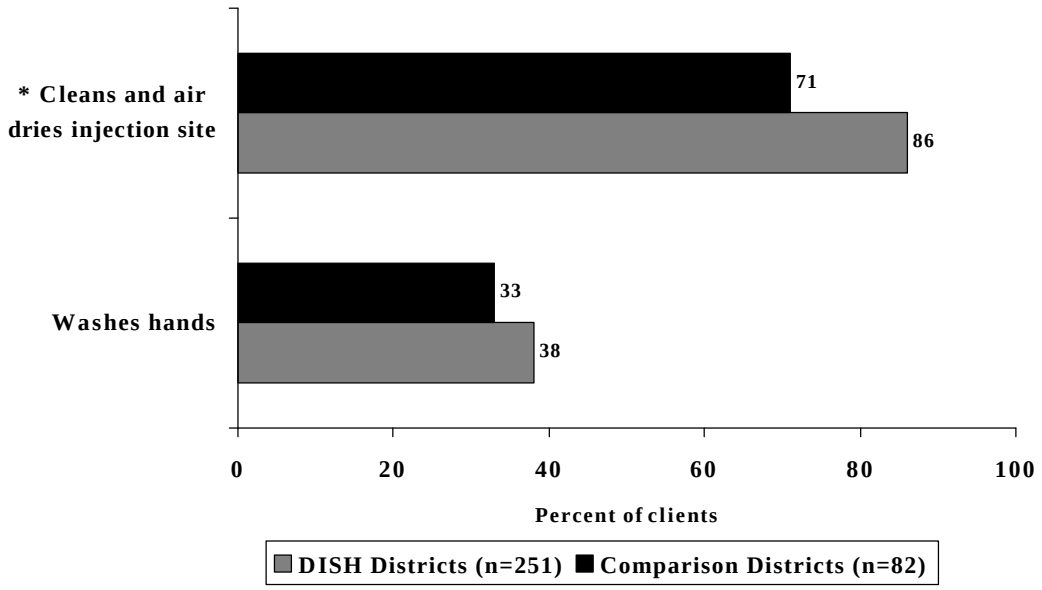


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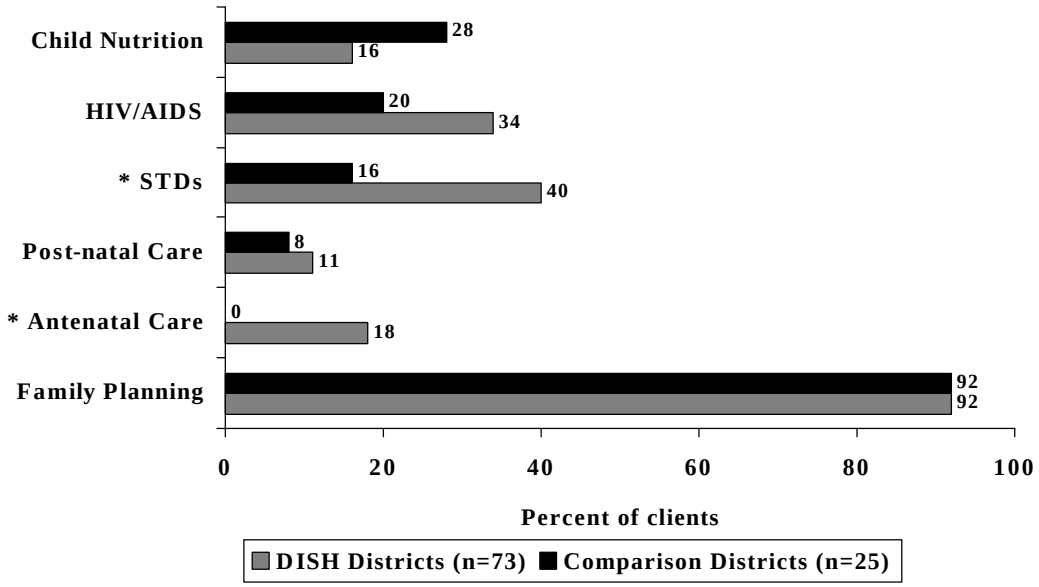
Figure 4.13
Topics covered in health talks attended by family planning clients



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ahead of time). It should also be noted that almost all injections were given with disposable syringes.

On three of the four infection control guidelines for pelvic examinations, DISH districts ranked higher compliance than non-DISH districts: washing hands before the exam (78% vs. 25%), using sterilized instruments (68% vs. 50%), and ensuring that instruments are cleaned (65% vs. 0%). Putting on new or disinfected gloves before the exam (80% vs. 100%) was the only item that scored lower in DISH districts. However, it should be stressed that the number of observations was very small.

4.4.7 Integration of services

The DISH training objectives include providing integrated reproductive and maternal-child health services. The impact of this project on the service integration can be assessed by comparing the type of information disseminated and services received during a family planning visit. Such data were obtained from family planning clients during exit interviews. Results indicate that clients in DISH districts had more opportunities to be exposed to information on a range of topics other than family planning. In particular, these clients were more likely to report discussing STDs and HIV/AIDS with the provider than those in comparison districts, 43% and 20% respectively.

Moreover, approximately 20% of all clients attended a group health talk during their visit to the facility. Almost one-half of these were new family planning clients. Most group talks covered family planning although other topics were introduced in some cases. As shown in Figure 4.13, group talks in DISH districts were significantly more likely to include information on STDs as well as antenatal care. Of the DISH clients 40% reported hearing about STDs and 34% reported hearing about HIV/AIDS. Only 16% and 20%, respectively, of non-DISH clients reported hearing about STDs and HIV/AIDS.

In addition to the type of information given to clients in group talks, clients were also asked if they had received services, other than family planning, during the visit.

Similar percentages, 16% of all clients in DISH districts and 15% in non-DISH districts, reported receiving health services other than family planning. In DISH districts, 13% received STD counseling, 6% HIV counseling and 5% STD screening. In the comparison districts, 12% of all clients received STD counseling and 9% HIV counseling, however none reported that they received STD screening (data not shown).

4.4.8 Information Education Communication (IEC)

The DISH project has a multi-faceted IEC campaign which includes providing health facilities with signposts indicating the available services, and distributing IEC materials such as flip-charts and anatomical models for use during family planning counseling.

Signposts

The Uganda national family planning logo, the "Yellow Flower," was launched in January 1994, and ideally should be displayed at all health facilities providing family planning services. The "Rainbow over the Yellow Flower" signpost, the national family health logo, was later launched in September 1997 and indicates the availability of a range of reproductive health services. The DISH project has taken the initiative to distribute these logos across facilities in project districts. Survey results suggest that 72% of family planning clients in DISH districts attended a facility displaying a "Yellow Flower" signpost, and 66% a facility with a "Rainbow over the Yellow Flower" signpost (Figure 4.14A). Fewer clients noted these signposts in comparison districts, 47% and 18% respectively.

Visual aids and reading materials

The use of visual aids during client-provider counseling sessions was recorded by observers. There was no appreciable difference in the level of use of visual aids, either a family planning flip chart or other materials, with clients in DISH and

Figure 4.14A
Proportion of clients attending a health facility with family planning and reproductive health signposts

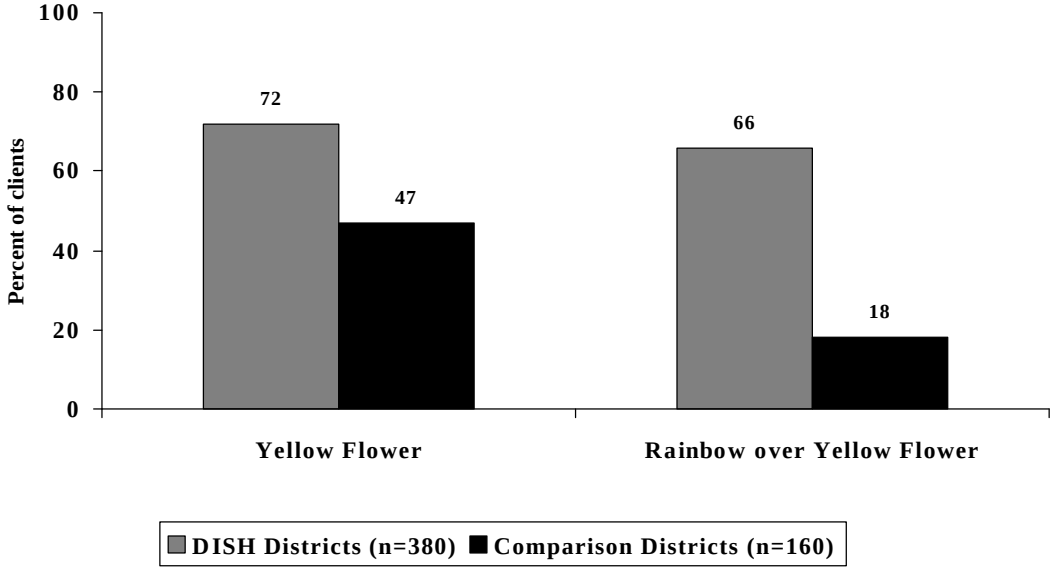
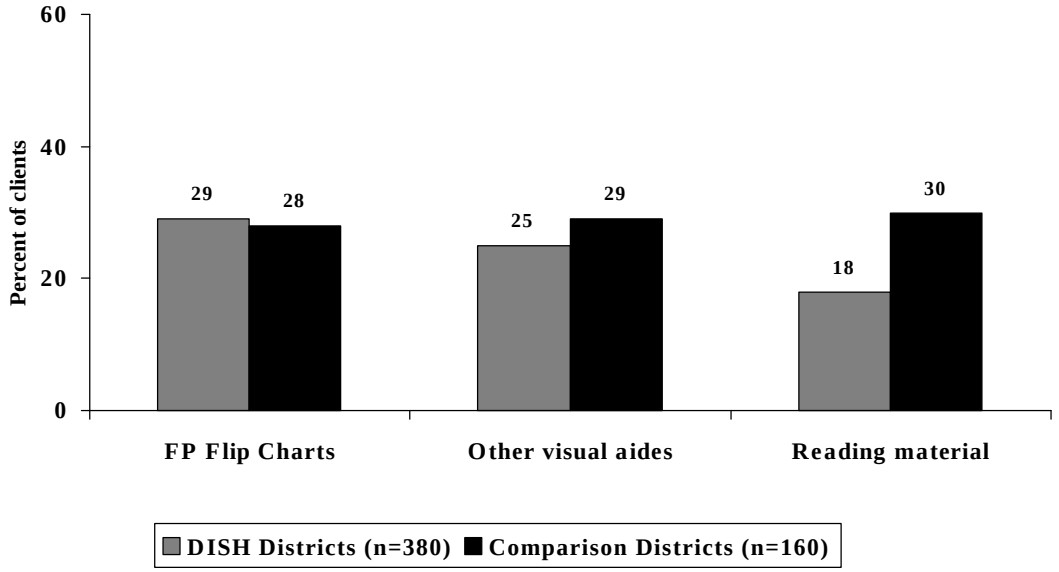


Figure 4.14B
Provider use of IEC visual and written materials with family planning clients



non-DISH districts. Overall, visual aids were used with 34% of all clients and 70% of new clients.

Fewer family planning clients in DISH district facilities were observed to receive written materials (18 vs 30%). Curiously, while in 22% of individual counseling sessions surveyors recorded distribution of IEC reading materials, only 10% of clients reported during exit-interviews that the provider gave them written documentation. Materials were much more likely to be distributed to clients visiting facilities located in urban areas and to those who had attended secondary school. In DISH districts, clients reported that the reading material covered family planning (86%), HIV/AIDS (67%), STDs (42%), antenatal care (17%), child nutrition (11%) and postnatal care (8%). In comparison districts, the subject matter was reported to be limited to family planning only.

4.4.9 Client's perception of services

Client satisfaction

Clients' attitudes towards services received during their visit to the health facility as assessed during exit-interviews are presented in Figure 4.15. Almost all clients reported that they were generally satisfied with the services received and that they were treated well by the provider and other staff.

One way to evaluate the provider's ability to create a supportive environment is to ask clients whether they felt comfortable asking questions during the counseling session. While the absolute levels were somewhat low, clients were more likely to report that they felt comfortable asking questions in DISH districts than in the comparison districts, 57% and 47% respectively.

On the other hand, clients in DISH districts expressed a greater degree of dissatisfaction with regard to the waiting time. Twenty-six percent of clients in DISH districts thought the wait was unreasonably long compared to 18% in comparison districts.

Perceptions of services

The median waiting time for services based on client responses was in fact somewhat longer at facilities located in DISH districts: 20 minutes versus 15 minutes in the comparison districts. Overall, 14% of clients waited two or more hours to see the provider. The median time then spent with the provider for counseling and clinical examination was 20 minutes for new family planning clients and 10 minutes for continuing clients. These latter time periods were similar in DISH and comparison districts.

Clients were also asked the main reason that they chose to come to that particular facility over another one. The major reasons cited were that this facility was closest, the staff provided good service, and simply that they always come here (Table 4.2). Almost all clients (94%) in DISH and comparison districts alike said that they would return to this facility the next time that they needed family planning services.

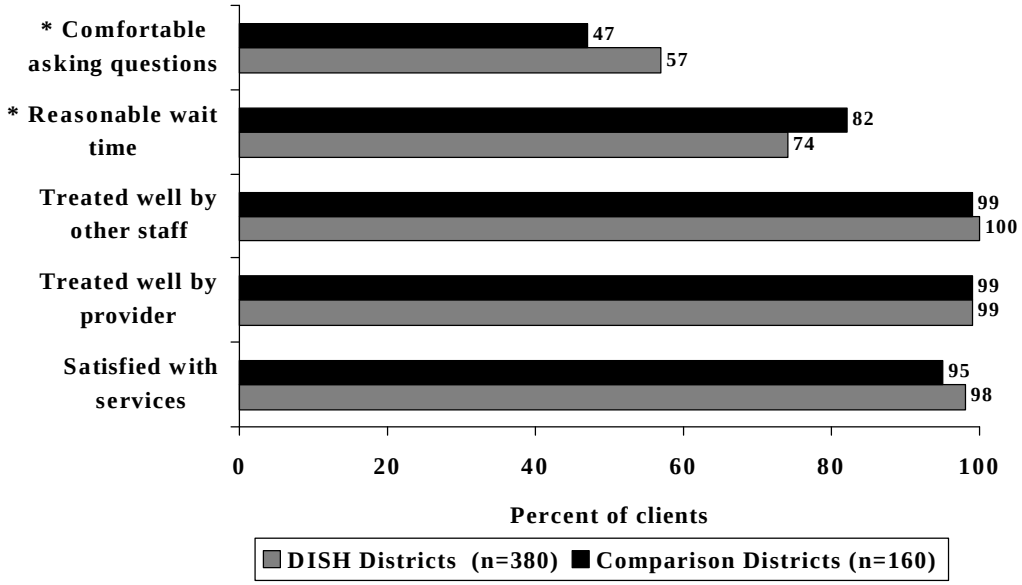
During the exit-interviews, clients were invited to offer a suggestion for improving services at the health facility. The majority of clients did not make any suggestions. With regard to those who did, in DISH districts, 12% indicated increasing facility space, 9% said improving the supply of drugs, and 8% suggested increasing the number of providers. In comparison districts, 31% of clients said increasing the number of providers, 10% improving space and 9% recommended that a doctor should be available on a regular basis.

4.5 Antenatal care results

4.5.1 Background characteristics

A total of 679 antenatal care visits were observed and clients interviewed for this study. Of the client-visits, 420 (62%) were in DISH districts and 259 (38%) were in non-DISH districts.

Figure 4.15
Clients' satisfaction with services received



*p<0.05

4.5.2 Facility characteristics

A higher percentage of antenatal clients in DISH districts visited facilities located in urban areas, 57% versus 43% of clients in comparison districts. Overall, almost half of the antenatal clients obtained services at hospitals. The distribution of facility type for the other clients differed somewhat between DISH and comparison districts. In DISH districts, one-third of the clients obtained services at health centers and very few clients received services at other facility types. In comparison districts, one-fourth of the clients obtained services at dispensary maternity units (DMUs) (Figure 4.16). Almost all clients (88%) in both DISH and non-DISH districts attended government run facilities.

In DISH districts, 69% of antenatal clients attended a facility displaying the "Yellow Flower" signpost, as did 45% of clients in comparison districts. Seventy percent of clients in DISH districts attended a clinic with a signpost with the "Rainbow over the Yellow Flower" logo compared to virtually no clients in the comparison districts. As with family planning, ideally all facilities offering reproductive health services should display the Rainbow over the Yellow Flower signpost.

Table 4.2 Percentage distribution of the major reason reported by family planning clients for attending a particular health facility

Reason Cited	DISH Districts (n=364)	Non-DISH districts (n=148)
Nearest to me	29	40
Staff provide good service	20	16
Always come here	21	22
Friend/relative recommended	8	3
Better facilities	6	5
Good reputation	6	5
Other	10	9

Figure 4.16
Percent of antenatal clients by type of health facility

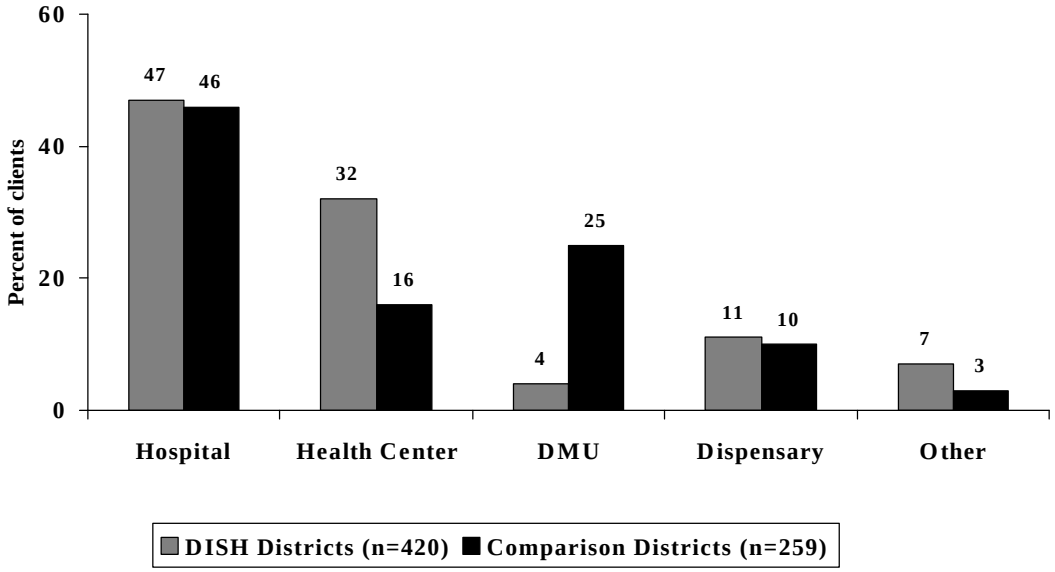
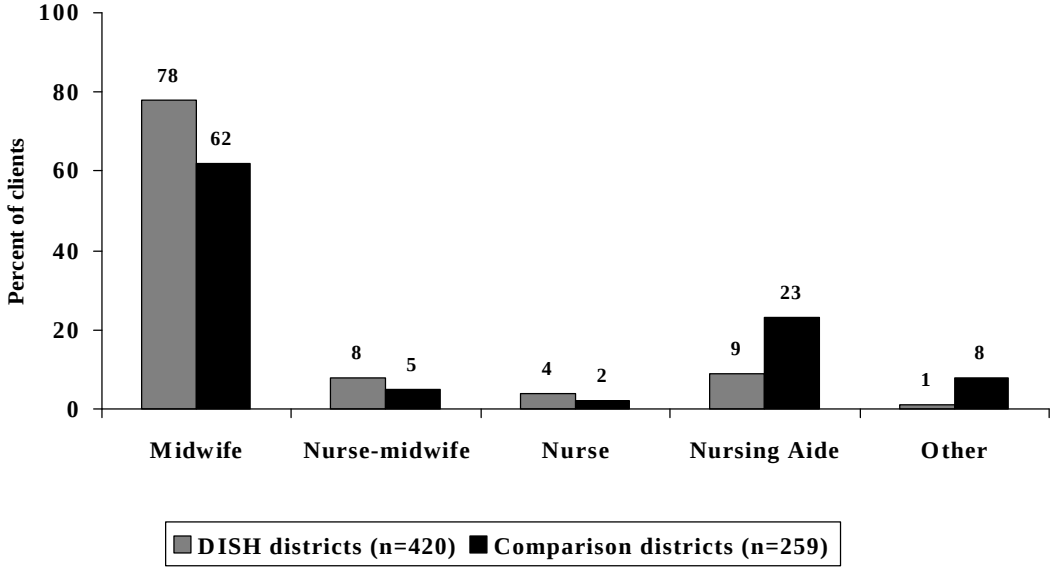


Figure 4.17
Percent of antenatal clients by type of provider



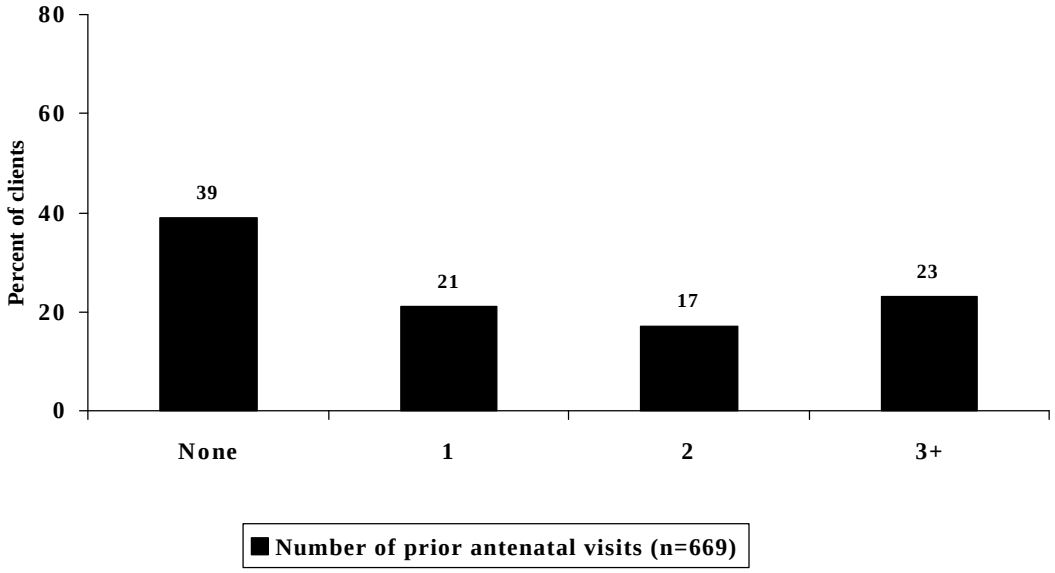
4.5.3 Provider characteristics

The majority of antenatal clients, 78% in DISH and 62% in comparison districts, obtained services from either a midwife or a nurse-midwife. Clients in comparison districts were more likely to be seen by a nursing aide, 23%, as compared to 10% of clients in DISH districts. Only a few clients were seen by other types of providers such as clinical officers, health workers or doctors. (Figure 4.17). Virtually all clients received care from a female provider. In DISH districts, just over half of the clients received services from a nurse or midwife who had received training from the DISH project.

4.5.4 Client characteristics

The age of antenatal clients interviewed ranged from 15 to 45 years with an average age of 23 years. Twenty-eight percent of clients had never given birth and the remainder had an average of two surviving children. With respect to trimester of pregnancy at the time of the observed visit, 5% of clients were in the first trimester, 32% in the second and 63% in the third. Although most of the women were in the later stages of pregnancy at the time of the study, for 39% of the clients this was the first antenatal visit for this pregnancy (Figure 4.18).

Figure 4.18
Percent of clients by number of prior antenatal visits for this pregnancy



4.5.5 Individual counseling session

Unlike family planning where one visit is sufficient to receive the needed services, a woman may make several antenatal visits during a pregnancy. In fact, the Uganda Ministry of Health guidelines suggests at least three visits during a pregnancy. As a result, counseling on various topics may occur on different visits, and not all topics may be covered in any one visit. In addition, some information is provided during group talks rather than during an individual counseling with the provider. These factors should be kept in mind when interpreting the results of the content of the counseling session.

Provider actions during counseling

Quality antenatal care requires that the provider treats the client with respect, is responsive to her needs, and encourages her to be an active participant in her care. The provider's ability to create a positive environment was assessed during the observation of the counseling session. As there were few differences in provider actions with clients in DISH and comparison districts, provider actions to create a good counseling environment are presented for clients in DISH districts only (Figure 4.19). With most clients, providers were respectful, saw the client in private and asked open-ended questions. Almost all providers discussed the return visit and recorded the client in the facility register, which is important for continuity of care and follow-up. In a comparison of provider actions in DISH and non-DISH districts, the sole difference was that fewer clients in DISH districts were encouraged by the provider to ask questions, 53% as compared to 67%.

Figure 4.19
Provider actions during the counseling session with antenatal clients in DISH districts (n=411)

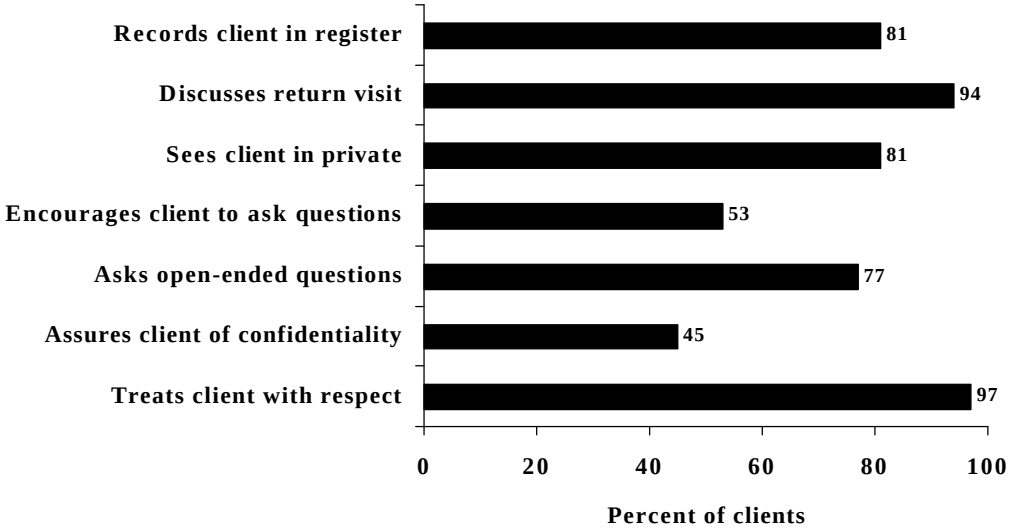


Table 4.3 Topics discussed during the first antenatal care visit for clients in DISH and non-DISH districts

Topic Discussed	Percent DISH (n=143)	Percent non-DISH (n=118)
Number of previous pregnancies	87	84
Last menstrual period	85	80
Current age	85	81
Immunized against tetanus	72	79
History of hypertension	66	68
History of diabetes	64	70
History of cardiac diseases	55	49
History of cesarean section	54	57
History of abortion	50	55
Date of last delivery	44	45
History of pregnancy complications	39	41
History of stillbirth	27	34

Information exchange

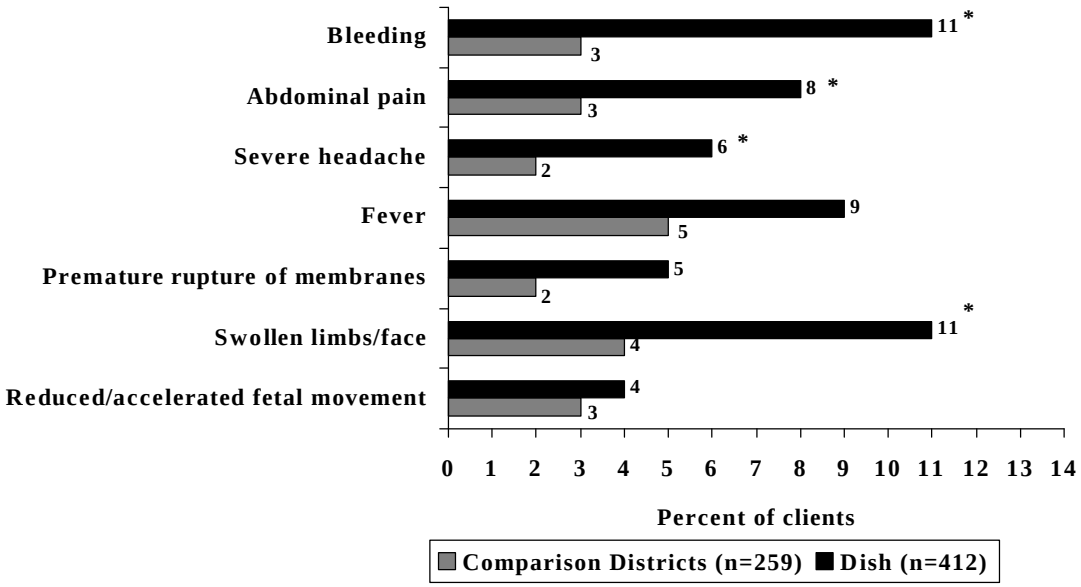
Observation of the client-provider interaction provided an opportunity to identify the types of information obtained during medical history taking and assessment of current health status. Table 4.3 presents the percentage of clients with whom the provider discussed various topics. As most women make several antenatal care visits, a complete medical history may not be taken during every visit; thus, information is presented for the first antenatal care visit for that pregnancy. Either the client or the provider could have initiated discussion on the topic.

The provider obtained information on aspects of the clients' medical history that are relevant to pregnancy with only about one-half of the clients. One explanation for the relatively poor assessment of medical history may be that the provider already has a record of, or is knowledgeable about, the woman's medical history from a prior pregnancy. A complete medical history, however, should be obtained on all antenatal clients. Assessment of parity, date of last menstrual period, age, and tetanus toxoid immunization status was performed with the majority of clients. The percent of clients with whom the provider discussed various aspects of their medical history was similar in DISH and comparison districts.

Counseling on pregnancy danger signs

Promotion and protection of maternal health requires that a woman is aware of the signs of a complicated pregnancy so that she knows to seek medical attention if problems do occur. Given the potential health threat, it is alarming to note that few women were informed of the signs of a complicated pregnancy during the observed visit (Figure 4.20). However, when comparing DISH to non-DISH districts, significantly more clients in DISH districts were informed of four of the seven signs of a complicated pregnancy presented. These signs were bleeding, abdominal pain, severe headache and swollen limbs/face. As with the other types of information given during the visit, some clients may have been counseled on the

Figure 4.20
Percent of antenatal clients told the signs of a complicated pregnancy



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signs of a complicated pregnancy during a previous visit and the information was not repeated during the observed visit. Overall 20% of clients in DISH districts and 11% in comparison districts were informed of at least one warning sign of complications during pregnancy. Whether or not the provider discussed warning signs was not related to the number of previous antenatal visits, the trimester of the pregnancy, or whether or not the client had previously given birth.

Screening for pregnancy complications

Antenatal clients should be screened for problems during pregnancy and offered guidance if they are experiencing problems. Whether or not the provider asked about and tried to resolve pregnancy related problems was assessed during the exit interview. Results are presented in Figure 4.21. Providers asked 91% of antenatal clients in DISH districts and 79% of clients in comparison districts whether they were experiencing problems with their current pregnancy. Overall, 53% of clients reported experiencing complications with their pregnancy. Among those reporting complications, the most commonly reported problems were constant abdominal pain, reported by 56%, severe headache/blurred vision (21%), fever (18%), and backache (12%). In DISH districts, clients experiencing a problem were significantly more likely to be given suggestions for resolving the problem than those in comparison districts (84% vs. 76%). Satisfaction with the advice given was also higher for clients in DISH districts; 86% of clients in DISH districts and 76% of clients in comparison districts were satisfied with the advice given.

4.5.6 Integrating services

An element of quality antenatal care is whether women are provided with comprehensive reproductive care. Providing integrated reproductive health services is also one of the major mandates of the DISH project. With respect to counseling, this means that other issues are addressed including nutrition, family planning and disease prevention. In addition, providers are expected to address other health problems that are not directly related to pregnancy. Observation of the counseling session provided an assessment of the type of information provided during the visit with the client.

Nutrition and breastfeeding

The percent of clients who received information on nutrition and breastfeeding is presented in Figure 4.22. Nutrition counseling was provided to 31% of clients in DISH districts and 25% of clients in comparison districts. Only a few clients were counseled on exclusive breastfeeding, that is providing the child with only breastmilk during the first 6 months of life. The percent of clients receiving counseling on exclusive breastfeeding was similarly low when the analysis was restricted to clients in the third trimester of pregnancy, the time when counseling on breastfeeding would be most relevant.

Figure 4.21
Problem assessment among antenatal clients

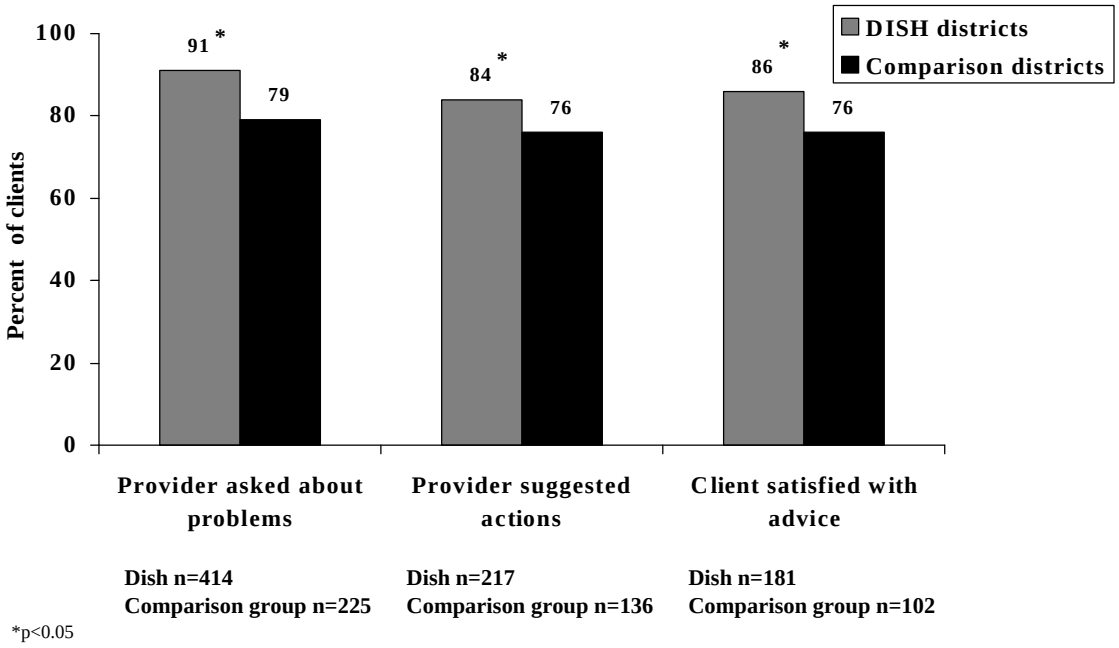

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Figure 4.22
Percent of antenatal clients receiving counseling on nutrition during pregnancy and exclusive breastfeeding

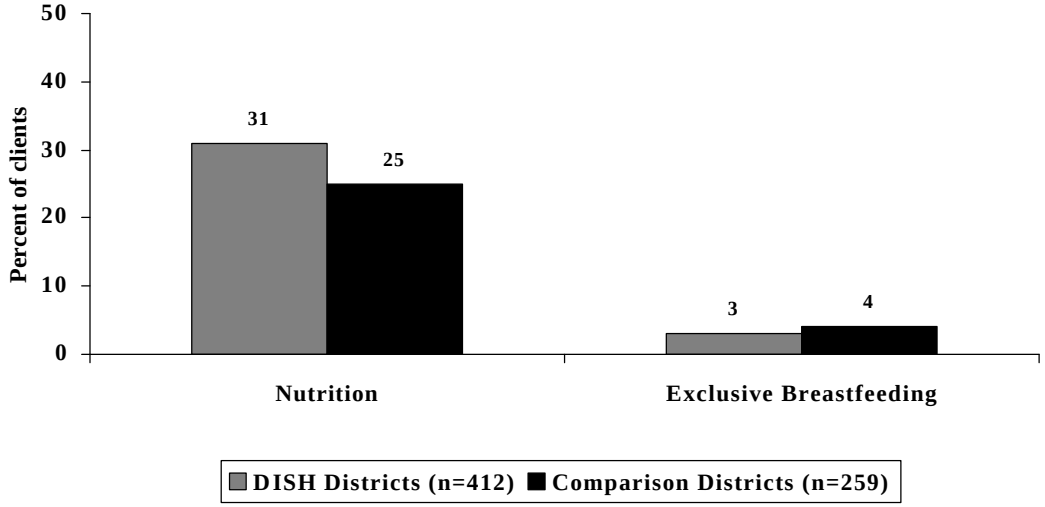

Figure 4.23
Percent of antenatal clients receiving family planning counseling

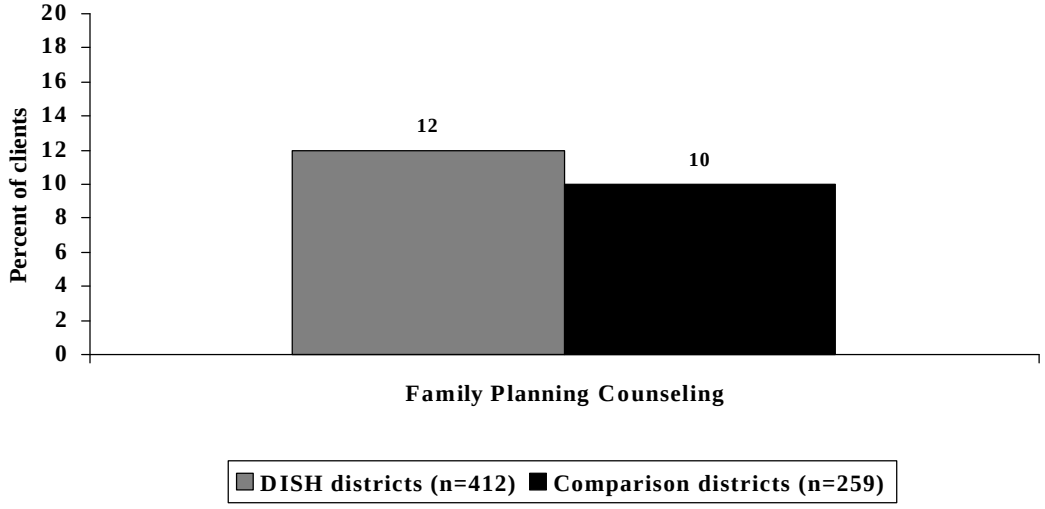

Figure 4.24
Percent of antenatal clients who were asked if they had signs or symptoms of an STDs during their first antenatal care visit

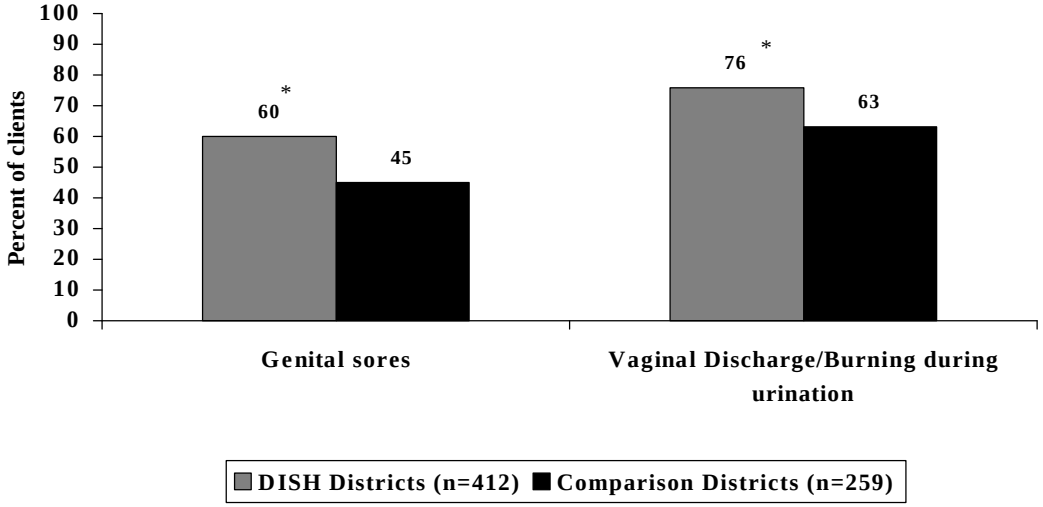

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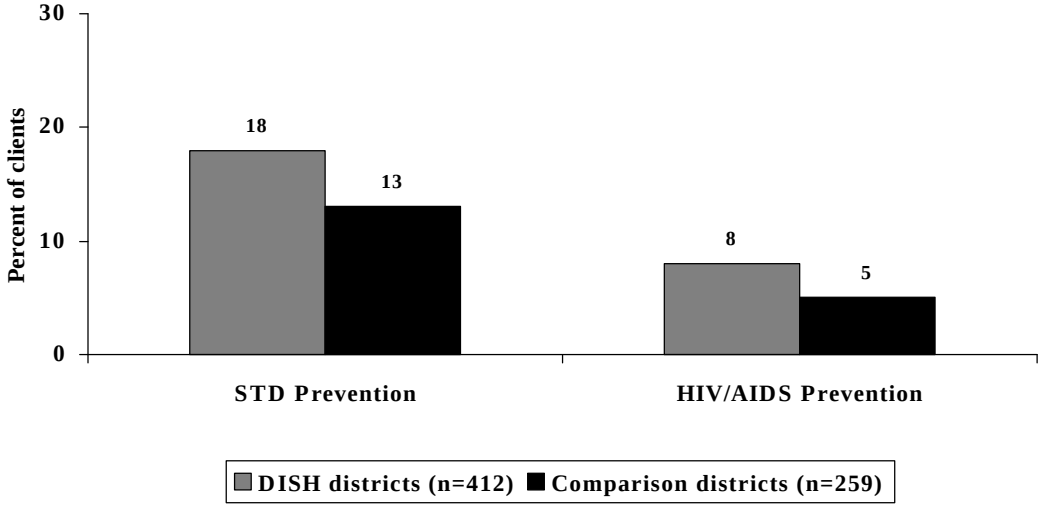
Figure 4.25
Percent of antenatal clients who received counseling on STD and HIV/AIDS prevention



Family planning

Another area where few clients received counseling was in post-partum family planning. As presented in Figure 4.23, 12% of clients in DISH and 10% in comparison districts received information about family planning. Even if the analysis is restricted to clients in the third trimester of pregnancy, a time when this information is most relevant, the percent of clients who received counseling in family planning is similarly low.

STD and HIV/AIDS

Antenatal clients should be screened for the presence of STDs, particularly at the time of the first antenatal care visit. Clients making their first antenatal visit in DISH districts were more likely to be asked if they had signs or symptoms of STDs than similar clients in comparison districts (figure 4.24). As determined from the observation of the client-provider interaction, 60% of clients in DISH and 45% of clients in comparison districts were asked if they had genital sores. Seventy-six percent and 63% of clients, respectively, were asked if they had burning while urinating or vaginal discharge. The percentages are somewhat lower if all clients are considered although the pattern remains the same.

Fewer than one in five antenatal clients overall received counseling in STD or HIV/AIDS prevention. As seen in Figure 4.25, clients in DISH districts were slightly more likely to receive counseling than clients in comparison districts.

Integration of information at group talks

Twenty-seven percent of antenatal clients reported during the exit-interview that they attended a group health talk during their visit to the health facility. Among clients who attended a health talk, 96% of clients reported that the provider talked loud enough for them to hear, and 85% report understanding much or all of the information given. One quarter of the clients reported that the health talks covered family planning and approximately one-half reported that the talks covered antenatal care. Other topics were covered

Figure 4.26
Topics covered in health talks as reported by antenatal clients

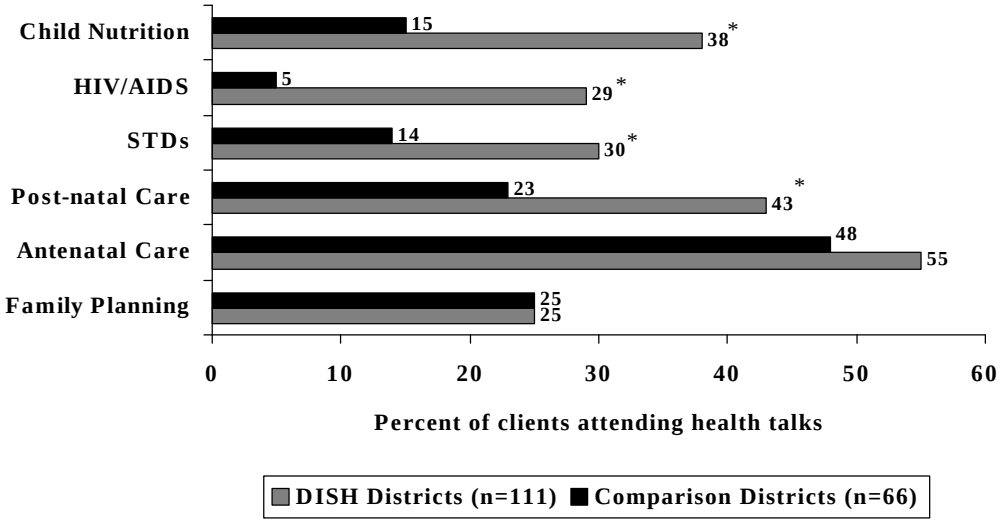


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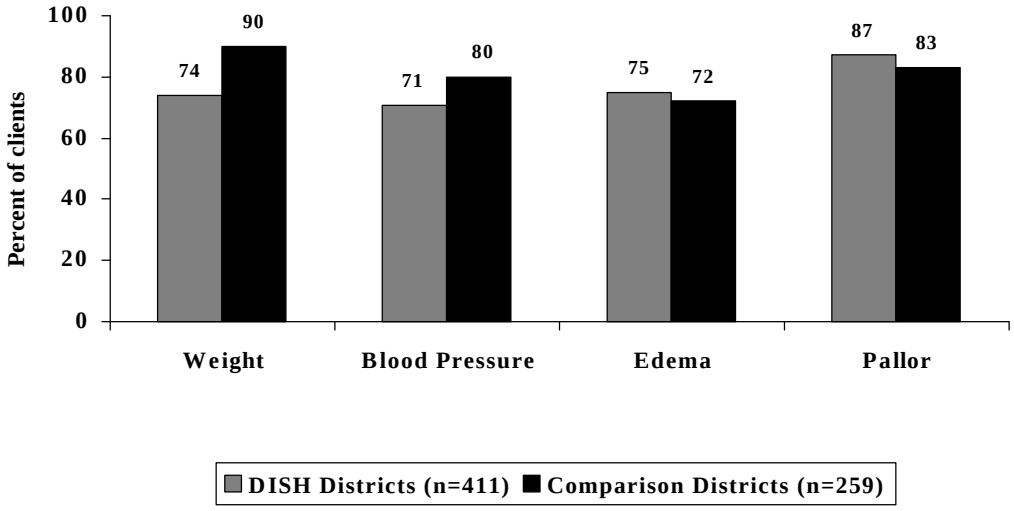
Figure 4.27
Percent of antenatal clients examined for signs of pregnancy complications



more frequently in DISH districts talks. For example, 30% of clients in DISH districts reported that the talk included information on STDs and 29% on HIV/AIDS as compared to 14% and 5%, respectively, for clients in comparison districts. Other topics reported more frequently by clients in DISH districts were post-natal care (43% vs. 23%) and child nutrition (38% vs. 15%) (Figure 4.26).

4.5.7 Clinical examination

Physical examination

During antenatal visits, the client should be examined for signs of a complicated pregnancy. The examination should include blood pressure measurement and a check of the client's face and hands for signs of edema to assess the risk of pre-eclampsia. The provider should also check the client's eyes and palms for pallor to detect possible anemia, and check that weight gain is adequate (Figure 4.27). Most, though not all, clients were assessed appropriately during the visit. In DISH districts, significantly fewer clients had their blood pressure checked (71% vs. 80%,) or were weighed (74% vs. 90%) as compared to clients in comparison districts. As the survey did not assess whether the facilities had functioning equipment, it is possible that poorer compliance with these procedures is due to lack of equipment in DISH districts. Government facilities in comparison districts have received equipment from other donors and this may account for the higher percentage of clients who were weighed and had their blood pressure checked. The percentage of clients checked for edema and pallor was similar in the two areas.

Iron/folic acid supplementation and tetanus toxoid vaccination

The prevention of anemia by prescribing iron and folic acid tablets during pregnancy is also a component of antenatal care. Iron/folic acid tablets were prescribed less frequently to antenatal clients in DISH districts. Only 38% of clients in DISH districts received iron/folic acid tablets as compared to 59% of clients in comparison districts (Figure 4.28). When supplies are limited, the recommendation in DISH districts is to provide supplementation to women with clinical signs of anemia or to women who are being treated for malaria. Although supply data were not available in this survey, it is likely that some facilities were out of stock during the survey period and that this may account for the rather small percentage of women receiving iron/folic acid in DISH districts.

Of those clients who received iron/folic acid tablets, however, only 10% of clients in both DISH and comparison districts were told about the side effects. Very few women receiving these tablets could name the side effects when asked during the exit interview. Many clients also did not know how often they were to take the tablets. Only 68% of clients in DISH districts knew that they should be taken daily as compared to 83% of clients in comparison districts.

Pelvic examination

More antenatal clients in DISH districts (22%) received a pelvic exam than in comparison districts (10%). In the majority of exams, the provider explained exam procedures before they were performed and the results of the exam afterwards (Figure 4.29). Almost all clients reported that they understood the language that the provider used when she was explaining the exam. Significantly more clients in DISH districts felt that the privacy for the exam was adequate (97% vs. 80%).

Figure 4.28
Percent of antenatal clients receiving iron/folic acid tablets or tetanus toxoid vaccination

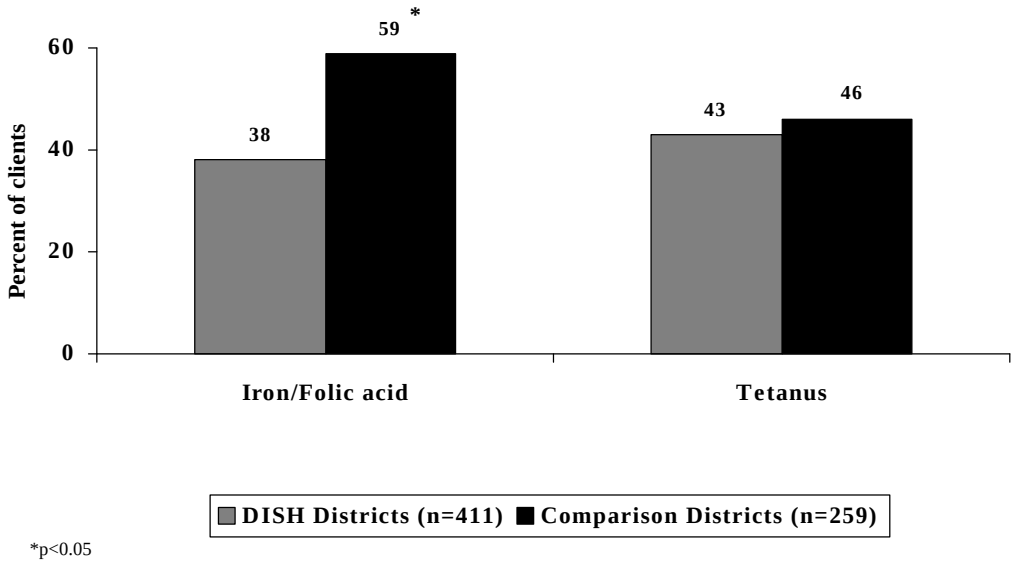


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Figure 4.29
Antenatal clients' experience during the pelvic exam

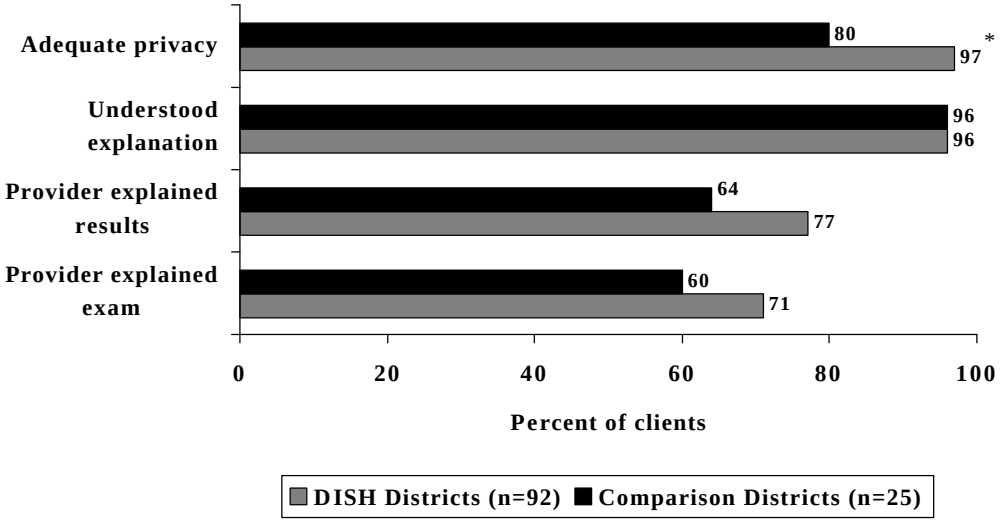

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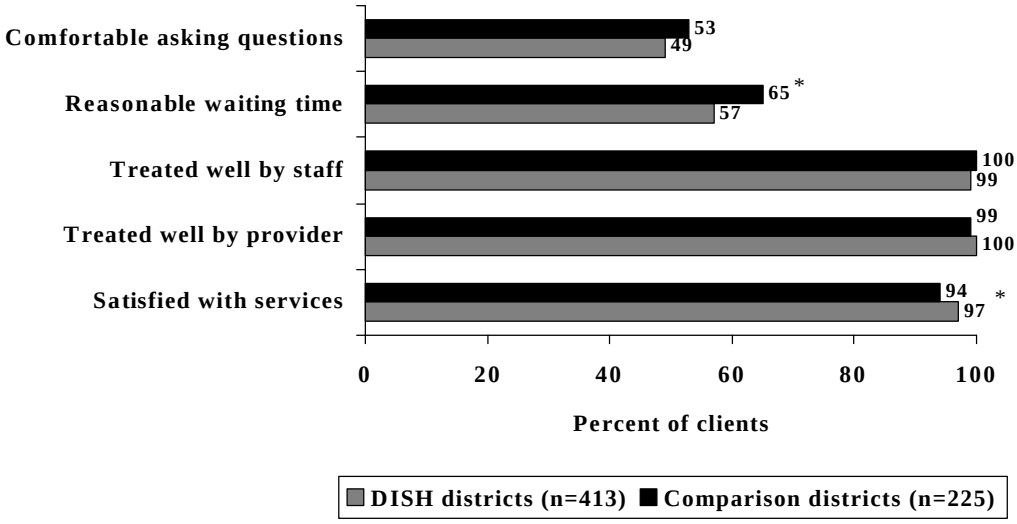
Figure 4.30
Clients' satisfaction with antenatal services



*p<0.05

4.5.8 Client's perspective

Client satisfaction

Client satisfaction with antenatal services was assessed during the exit interview and is presented in Figure 4.30. Almost all clients report being satisfied with services and being treated well by both the provider and other clinic staff. Client satisfaction with services was higher for clients in DISH districts. Although antenatal clients reported that they were well treated by the provider, only about one-half of the clients said that they felt comfortable asking questions, and just over one-quarter actually asked the provider any questions.

Many antenatal clients were not satisfied with the waiting time to see the provider. Over 43% of DISH clients and 35% of non-DISH clients reported that the waiting time was long or too long. Actual waiting time was, in fact, quite long for many clients. Thirty-two percent of clients in DISH districts and 29% in comparison districts reported waiting for over two hours to see the provider. The median waiting time was 60 minutes for clients in both DISH and non-DISH districts. Waiting time varied considerably by type of facility and was longest in urban areas and for those clients attending hospitals and DMUs.

In contrast to waiting time, the average time spent with the provider was relatively short. A first antenatal care visit lasted, on average, 15 minutes whereas clients coming for a follow-up antenatal care visit spent only 10 minutes with the provider. Length of time the client spent with the provider was similar for clients attending facilities in DISH and comparison districts.

Care seeking behavior

During the exit-interview, antenatal clients were asked for their opinion as to why some women delay obtaining antenatal care until late in the pregnancy (Table 4.4) The most frequently cited reason was that the women who have no complications think that they do not need antenatal care (27%). Other reasons mentioned by several antenatal clients were that some women were not aware of antenatal care (19%), and others lack of money (17%). The same question about antenatal care was asked of the family planning clients. The reason most frequently cited by family planning clients was that women were not aware of antenatal care (24%). This was followed by laziness (21%), no need for antenatal care if the woman is not experiencing complications (17%), and lack of money (14%).

Table 4.4 Main reason cited by family planning and antenatal clients as to why women delay seeking antenatal care

	Percent of Clients	
Main Reason Cited	**Family Planning (n=530)**	**Antenatal (n=631)**
Ignorance/not informed of antenatal services	24	19
No need for antenatal care if no complications	17	27
Lack of money	14	17
Laziness	21	13
Wait until they are sure they are pregnant	2	5
Lack of transport	2	4
Fear of mistreatment	2	0
Other	11	7
Don't know	7	8

Figure 4.31
Trimester of pregnancy at the first antenatal visit

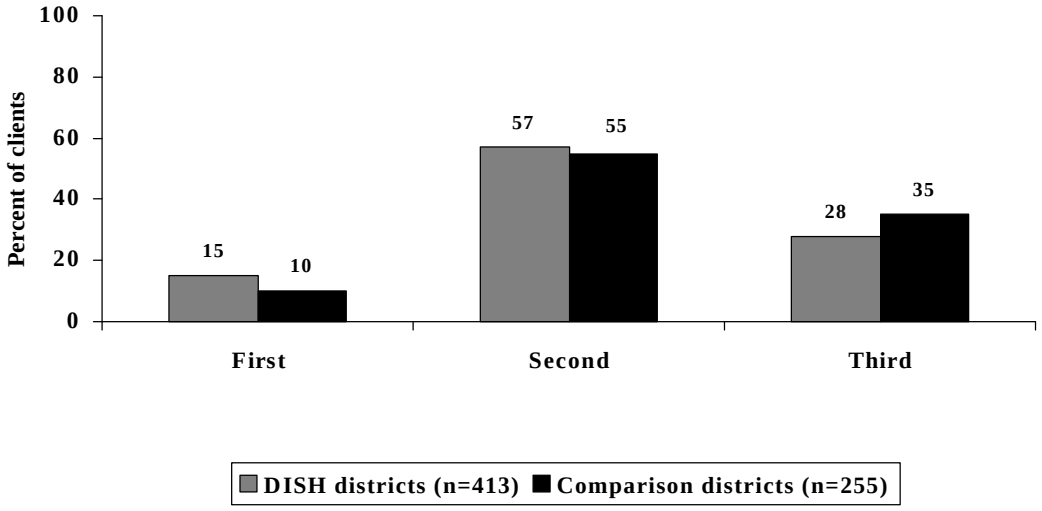


Figure 4.32
Percent of antenatal clients by where they delivered their last birth (n=482)

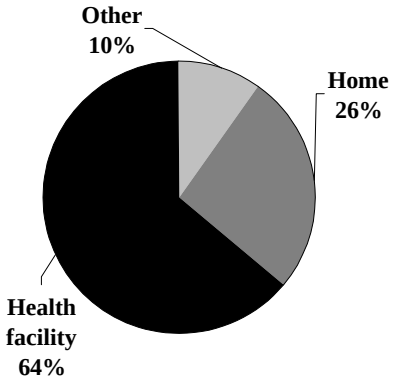
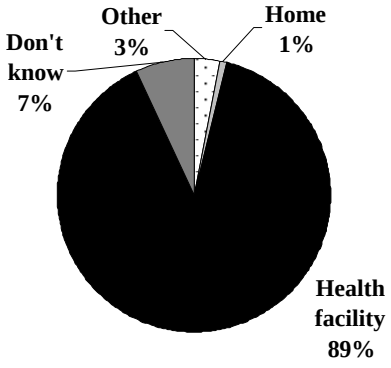


Figure 4.33
Percent of antenatal clients by where they plan on delivering this birth (n=668)



Antenatal clients were also asked when they made their first visit for this pregnancy (Figure 4.31). Over half of the women were in the second trimester of pregnancy when they made their first antenatal care visit and approximately one-third were in the third trimester of pregnancy at the time of their first visit.

Antenatal clients were also asked where they had given birth previously (for those with a previous birth) and where they plan on giving birth this time (asked of all women). When asked where they gave birth last time, 64% of antenatal clients said that they had given birth at a health facility, 25% gave birth at home and 10% gave birth at other locations such as the home of a traditional birth attendant or relative (Figure 4.32). When asked where they will give birth this time, however, responses were quite different. Almost all clients (89%) reported that they planned to give birth at a health facility. (Figure 4.33)

4.6 Programmatic implications

Although results show that quality of care of family planning and antenatal services requires much improvement, there are several notable differences in quality of care in DISH project and non-project areas. The most obvious difference is the integration of services in DISH project areas, particularly with respect to HIV and STD prevention efforts. Clients are more likely to receive HIV/AIDS and STD prevention information and to be screened for STDs. Given the prevalence of HIV and STDs in Uganda, this is encouraging. With respect to family planning services, new clients were more likely to receive their preferred contraceptive method. Technical competence and compliance with clinical guidelines when administering the injectable and conducting a pelvic examination were slightly better in DISH districts. Clients receiving antenatal care were better informed of some of the signs of a complicated pregnancy. Overall, however, more effort in educating clients is needed. Problem assessment and resolution with both current family planning users and with antenatal clients were better in DISH areas. Areas of weakness were in measuring weight and blood pressure of antenatal clients and supplying clients with iron-folic acid supplementation. As all of these actions require equipment and supplies, the question arises as to whether inadequate equipment and supplies may be a block to quality care in some facilities.

Although this study was designed to assess quality of care in DISH and non-DISH districts for comparative purposes, it needs to be noted that many providers in DISH districts had not yet received training from the DISH project. Subsequent analyses will focus on comparing key aspects of quality among DISH trained and non-trained providers. This may shed more light on the impact of DISH training activities on the provision of quality reproductive services.

It is evident, however, that there is much work still to be done in improving the quality of family planning and antenatal care services. The results of the quality of care study have provided an interesting insight, namely, the disparity between quality of care as measured in this study and the client's perspective on the care received.

4.7 Presentation and utilization of results

As with the results from other DISH research and evaluation activities, the results of this study will be disseminated widely in Uganda. The DISH management team and its partner organization involved in implementing the project will constitute the primary users of the survey results. This includes non-governmental organizations (NGOs) working as sub-contractors or grantees in implementing DISH activities and members of the district health teams in DISH districts. To disseminate the main findings, results will be presented at the annual workplan meeting. An additional forum for presenting the results will be the national seminar for the dissemination of DISH research findings. The results from this survey will be presented along with findings from the 1999 DISH evaluation surveys at a national DISH evaluation dissemination seminar in early 2000.

In addition to presentation of the results in meetings and seminars, the final report of the quality of care study will be distributed to relevant parties in Uganda. This includes NGOs working in reproductive health, central and local government offices involved in health policy and planning

4.8 Acknowledgements

The following individuals should be acknowledged for their contributions to the study. Dr. Ann Blanc, formerly of Macro International, Dr. Amy Tsui of the University of North Carolina at Chapel Hill, and Jay Anderson and Dr. Krista Stewart of USAID gave input into the study design and adaptation of the instruments. At DISH, Peter Savosnick of Pathfinder International, Stembi Matatu of INTRAH, and Cheryl Lettenmeier of JHU/CCP provided valuable comments on the instruments and final report.

Chapter V

Zimbabwe
Quick Investigation of Quality of Family Planning

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5. Quick Investigation of Quality of Family Planning in Zimbabwe

5.1 Overview of the field test in Zimbabwe[31]

5.1.1 Importance of the field test in the local context

Between November and December 1998, the Family Planning Service Expansion and Technical Support Project (SEATS)[32] carried out a field test of the QIQ methodology in Zimbabwe. In addition to contributing to the development and testing of the QIQ tool, the study also helped SEATS to assess the quality of care of family planning services in clinics receiving SEATS support. The focus on quality is highly relevant to SEATS principal objective:

> *" . . . to expand the development of, access to, and use of quality family planning and reproductive health services in currently underserved populations… through the provision of appropriate financial, technical and human resources."*

Ensuring quality family planning services was one of the main objectives of SEATS' work in Zimbabwe. The project worked with public sector facilities in three major cities in Zimbabwe (Bulawayo, Chitungwiza, and Gweru) and with private sector midwives affiliated with the Zimbabwe Nurses Association (ZINA). Six subprojects, all with some focus on quality improvement, were developed to expand and improve family planning services at facilities managed by these organizations. All the organizations participated in two workshops on continuous quality improvement (CQI) and developed quality action plans (QAPs) to conceptualize what aspects of quality should be improved and how. These subprojects and their general objectives were as follows:

- *Bulawayo Family Planning Service Delivery: Support for Quality Improvement and Training*: To improve the health of families in Bulawayo, the second largest city in Zimbabwe, by strengthening the delivery of family planning services in the city.

- *Bulawayo Voluntary Surgical Contraception Project*: To increase the availability of and access to voluntary surgical contraception services in Bulawayo thereby expanding the number of acceptors.[33]

- *Chitungwiza Family Planning Training*: To increase the number of well-trained service providers of contraception in Chitungwiza, a high-density, low-income urban area on the outskirts of Harare.

- *Gweru Family Planning Service Delivery*: *Support for Quality Improvement and Training*: To improve the health of families in Gweru by strengthening the delivery of family planning services in the city.

- *Gweru Youth Project*: To establish youth friendly reproductive health services in Gweru.[34]

- *Zimbabwe Nurses Association /Midwifery Association Partnership for Sustainability (ZINA)*: To promote the development of midwives and to ensure the sustainability of local midwifery associations.

Overall, 39 facilities received SEATS support, and all were included in this study. With the exception of ZINA, all facilities studied were public

[31] The authors would like to acknowledge the assistance of Meghan McCarrier in editing this report.

[32] SEATS II is a family planning service delivery project carried out by John Snow, Inc. (JSI) with funding from the United States Agency for International Development (USAID), Cooperative Agreement no. CCP-C-00-94-00004-10

[33] The two Bulawayo projects were combined for the purposes of this analysis.

[34] Both Gweru projects were combined for analysis.

sector clinics associated with City Council health departments. The ZINA (n = 12) sites were all private sector clinics managed by private midwives.

This study was carried out in the penultimate year of the SEATS project, after substantial work on quality improvement had been carried out. Therefore, from the SEATS perspective, the results can be considered as endline. The study revealed many areas still needing improvement, however, and in the spirit of continuous quality improvement, the findings should be considered as part of a long-term, ongoing process.

5.1.2 Adaptation of the instruments to local needs

The instruments used in the Zimbabwe QIQ were similar to the standard QIQ instruments used in other field test countries. Zimbabwe used all the tools developed for the field test: facility inventory (or audit), observation of client-provider interaction, and client exit interviews. All of the questions in the study tools were reviewed and, if necessary, tailored to the information needs of the programs in Zimbabwe. The research instruments and instruction guides were translated into the two main Zimbabwean languages: Shona and Ndebele.

5.2 Sampling

The Zimbabwe QIQ included all 39 facilities that had received training or other support through the SEATS project. Of these, 27 were public sector health centers in the municipalities of Chitungwiza, Gweru and Bulawayo. These facilities provide FP services among other reproductive, curative and preventative services. They are under the supervision of a Director of Health Services who works within the Department of Health Services of each city.

The other 12 sites included in the study were private midwives' clinics affiliated with the Zimbabwe Nurses' Association (ZINA). A recent change in health policy in Zimbabwe has enabled midwives to provide a limited number of services, including family planning, under the supervision of a registered medical doctor. Since this change in policy, SEATS undertook to train and equip some ZINA clinics in order to reach new clients through this unique type of service provider. All of the clinics that received both training and equipment were classified as being model clinics and were selected for participation in the QIQ survey in order to measure their level of family planning quality as private midwives. Other clinics managed privately by midwives that received training but no equipment were not included in the study. The 12 ZINA sites that participated in the study were located in the following cities: Harare (7), Bulawayo (3), Karoi (1), and Kwekwe (1).

In advance of the fieldwork, the Director of Health Services in the selected geographic areas and the private midwives at the selected ZINA clinics were briefed on the objectives of the survey, and their permission to perform the study was obtained. The sampling procedure was to visit each facility for two days. The fieldwork teams then attempted to observe client-provider interactions and to conduct exit interviews for all family planning clients who attended on those days (i.e., a self-weighting sampling methodology). Table 5.1 shows the final sample size for the survey. The team supervisors recorded the number of all FP clients visiting the facility per day to assess client load. A total of 754 clients were asked to participate in the QIQ, and only one woman refused to be observed. Of the 753 women observed, 742 were interviewed.

Table 5.1. Distribution of study subjects (facilities and clients) by type/location

Geographic Area	Type of Facility	Number of Service Delivery Points	Number of Observations	Number of Client Exit Interviews
Bulawayo	Public	16	482	478
Chitungwiza	Public	4	151	144
Gweru	Public	7	86	84
ZINA[1]	Private	12	34	36
TOTAL		39	753	742

Notes: [1] Private facilities chosen were located in Harare, Bulawayo, Kwekwe and Karoi.

5.3 Fieldwork

5.3.1 Organization of teams

The study headquarters was established at the SEATS Africa Regional Office in Harare. The overall supervisory team consisted of the principal investigator and three researchers, all of whom served as visiting supervisors to the field teams. During the first three days of the survey, these supervisors remained with the same teams, and thereafter they rotated. The study team also managed logistics and ensured data quality throughout the survey.

A total of four field teams were formed with four members each: a field supervisor, one observer and two interviewers, with the field supervisor acting as a second observer in times of high client flow. Due to low client flow, the Harare team had just a field supervisor/observer and two interviewers. Each team remained at each assigned health center for the entire two days of data collection.

5.3.2 Recruitment and training of field supervisors, observers, and interviewers

Clinic managers (i.e., hospital matrons) were recruited to be the field supervisors (and back-up observers). They completed the facility audit and supervised each team's daily work. FP clinic service providers were recruited to conduct the client exit interviews and observe the provision of services. All the survey staff were recruited from the Ministry of Health and Municipal Health Facilities. No interviewers or observers were recruited from the facilities that were involved in the study. Staff recruited from a given geographic area were assigned to facilities in that area to increase the cost-effectiveness of the study and reduce the number of logistical problems encountered. A total of four teams with four members each were assembled.

The Principal Investigator developed a training manual that covered the basic concepts and principles of conducting a survey and how the questionnaires were to be completed. A one-week training session was conducted for both interviewers and observers. During this training the interviewers, observers and facility auditors received the same training on the data collection tools. Possible responses and the interpretation of non-standard responses were discussed in detail for each question. An example of all the training and IEC materials, posters and books listed on the facility audit were brought to the training room for review.

A one-day pretesting exercise was conducted at non-survey facilities. Before the pretest, each team role-played the observation and exit interviews. Then, each tool was pretested by the person who was to be responsible for completing it during actual data collection. The team supervisors practiced matching the instruments for the observation and exit interview of a given client. They also pretested each tool to become familiar with them and facilitate quality control in the field.

5.3.3 Supervision and control of data quality

Before the data collection began, the Directors of Health Services in each city, the facility managers, and the private midwives were informed about the general purpose of the survey through an official letter. The Principal Investigator also followed the letter with a personal visit to the Director of Health Service of each respective city both to explain the purpose of the survey and to share with them the methodologies and tools to be used to collect the data. The survey supervisors (i.e., field team supervisors) prepared a schedule of visits that was shared with the Director of Health Services, who in turn informed the clinic managers that a team of "researchers" would be visiting their facilities. The actual date of visit, although specified on the schedule, was not communicated to the facility to avoid the facility preparing for the study. This preparation might make them perform above their "normal" performance, biasing the results upwards and negating the study's goal to capture service provision and client satisfaction in its natural setting. During the first day of the survey at the clinics, the interviewers were met by a clinic manager and directed to their pre-assigned interview and observation locations.

The movement of each team from one facility to another was tracked at headquarters with a schedule showing the dates each facility was to be visited. If the schedule changed, the survey team was to call the survey headquarters immediately. In addition to this schedule of visits, telephone communication made it easier for the principal investigator and three researchers to do field supervision without any logistical problems.

Visiting supervisors (from the headquarters supervisory team) played an important role in the control of data quality and in survey logistics. They met the interviewers on site, reviewed the completed questionnaires, brought the completed questionnaires back to the headquarters and left blank questionnaires with interviewers when necessary.

After each three-day field visit by the SEATS supervision team, a review meeting was organized with all the staff at headquarters involved in the survey. During these weekly meetings, common mistakes on data collection were discussed and logistical problems were resolved.

Since the field supervisors collected the questionnaires daily, the completed questionnaires were sent to headquarters as each facility was completed. Two professional data entry staff entered the data using Epi-Info. The data entry staff were instructed to bring every unclear, inconsistent piece of data to the principal investigator for verification. Data entry and preliminary analysis of the data took four weeks.

5.3.4 Duration of fieldwork

The duration of fieldwork varied depending on the number of facilities in each geographic area. Data collection occurred from November 10, 1998 to December 19, 1998, ranging from nine days in Chitungwiza to 27 days in Bulawayo. After completing their area, the Gweru field team moved to Kwekwe City and Bulawayo City where they surveyed all selected private midwives clinics. Similarly, the Chitungwiza team traveled to Karoi to survey the private midwife clinic. The movement of the teams expedited the data collection process.

5.3.5 Difficulties encountered

Although the survey went smoothly overall, there were a few difficulties worth mentioning.

- **ZINA Sites:** Low client flow in these sites was a problem. At the 12 sites, a total of 36 clients were observed and interviewed. In Kwekwe City the team spent 2 days in the field without one observation or interview. In Karoi, the Chitungwiza team together with the Principal Investigator traveled about 200km from Harare to interview only seven clients in two days. Overall, the ZINA sites yielded the lowest FP client flows from all the sites.

- **Chitungwiza City:** When one service provider realized that she was to be observed, she rescheduled to a later date all clients who desired to have IUDs inserted. In addition to biasing results, this inevitably affected the number of "clinical" observations and most of observations for that clinic were for non-clinical procedures and counseling.

5.4 Results

5.4.1 Characteristics of clients

Table 5.2 shows that the purpose of the visit (new client, re-supply, follow-up, IEC only) differed slightly by location.

Bulawayo served the majority of all clients (478 of 742 clients). Overall, most of clients visiting the facilities were re-supply clients (66%), and this pattern was consistent in three of the four regions. Only at ZINA clinics were most clients considered new clients (61%) in that they were either new to the facility, restarting a method after more than 6 months, or switching methods. ZINA is unique because the recent de-regularization of a policy prohibiting midwives from offering health services has enabled these facilities to begin to offer FP services along with other reproductive health services. Many FP users have begun to visit these facilities because of their convenient locations.

Table 5.3 shows the socio-demographic characteristics of clients in the study based on the client exit interview.

The largest proportions of women attending family planning were those married in monogamous union. A very small proportion of women were in polygamous marriages (3.8% average). Less than 10% of the clients had never been married or were divorced, separated or widowed (data not shown).

The majority of women attending family planning clinics were 20-24 years old (32%), closely followed by those 25-29 years old (27%). The median ages of those attending family planning clinics ranged from 26.6 years in Gweru to 29.0 at ZINA private clinics. Very few women 40 years or older attended the family planning clinics (4%).

Although women may start childbearing or become sexually active at a young age, clients less than 20 years old represent only 8% of all clients. This situation may be due to lack of privacy for

Table 5.2 Percent distribution of type of client by type/location

Area	Type of Clients [1]			
	New Client	Re-supply	Follow-up	IEC
Bulawayo (n=478)	28.0	68.6	3.1	0.3
Chitungwiza (n=144)	25.7	71.5	2.8	0.0
Gweru (n=84)	33.3	57.1	7.1	2.4
ZINA (n=36)	61.1	25.0	8.3	5.5
TOTAL (n=742)	29.8	65.8	3.7	0.7

Notes: [1] New Client-reason of visit: (1) to receive, get prescribed or referred for a contraceptive method for the first time at the site, (2) to restart contraceptive use after not using for 6 months or more, and (3) to switch contraceptive method
Re-supply Client: reason of visit is to discuss getting supplies for method already being used.
Follow-up Client: reason of visit is to have a routine follow-up or to discuss a problem with the contraceptive method that is being currently used.
IEC: reason of visit is to receive information and/or counselling about a contraceptive method

young women who might not want to be seen by their parents, fear of reaction from nurses and other providers, and lack of youth-friendly services. Gweru, which includes a program focused on young adults, had the highest proportion of clients younger than 20 years of age (13%).

A large proportion of clients attending family planning clinics had secondary or higher education (73%), while very few women attending the family planning clinics had no education (2% average). Most of the clients were of low socio-economic status as measured by the possession of a car/truck, motorcycle, bicycle, scotch cart and/or cattle. Nearly half of all respondents had none of these items (46%). Less than 10% of the clients owned more than two items, however 19% of clients from Gweru reported a high socio-economic status (SES).

Table 5.3 Socio-demographic profile of the study population by type/location

Characteristic	Bulawayo n=478	Chitungwiza n=144	Gweru n=84	ZINA n=36	TOTAL n=742
Married in monogamous union	87.2	85.4	81.0	94.4	86.5
Completed secondary or higher education	71.9	75.7	70.2	77.8	72.7
Religion					
Traditional	0.0	1.4	0.0	0.0	0.3
Christian	91.0	93.1	100.0	94.4	92.6
Islam	0.4	1.4	0.0	0.0	0.5
Other	8.6	4.2	0.0	5.6	6.6
Age:					
15-19	6.9	9.0	13.1	0.0	8.0
20 – 24	34.4	29.9	31.0	5.6	32.2
25 – 29	25.8	26.4	27.4	16.7	26.6
30 – 34	18.2	20.1	11.9	36.1	17.7
35 – 39	11.1	8.3	10.7	13.8	11.2
40 – 44	2.7	5.6	5.9	25.0	3.6
45 – 49	0.8	0.7	0.0	2.8	0.7
Mean age	27.3	27.3	26.6	29.0	27.3
Ethnicity					
Shona	35.8	79.2	76.2	86.1	51.2
Ndebele	54.0	3.5	15.5	2.8	34.8
Other	14.2	17.4	8.3	11.1	13.8
Socio-Economic Status [1]					
Low (owns no items)	47.9	57.6	20.2	41.7	46.4
Medium (owns 1-2 items)	42.7	37.5	60.7	52.8	61.9
High (owns 3-5 items)	9.4	4.9	19.1	5.6	9.4

Notes: [1] Items owned include car/truck, motorcycle, bicycle, scotch cart, or cattle.

The fertility preferences of clients help to determine the appropriate services for a facility to offer. If women want more children, temporary contraception should be offered; however, if women want to limit their childbearing, permanent methods should be available. Table 5.4 below shows the percent distribution of fertility behavior and preferences by region.

On average, clients had two births; very few had no children (0.5% average). However, the presence of youth-friendly services is apparent in Gweru where 2.4% of all clients had no children. More than half of the women are sure that they want another child, but the largest proportion of the clients want their next birth after three years, indicative of longer birth spacing patterns.

Table 5.4 Fertility behavior and preferences

	Bulawayo n=478	Chitungwiza n=144	Gweru n=84	ZINA n=36	TOTAL n=742
Number of Living Children					
0	0.4	0.0	2.4	0.0	0.5
1-2	67.2	63.2	67.9	52.8	65.8
3-4	24.3	27.8	20.2	30.5	24.8
5+	8.9	9.0	9.5	16.7	8.9
Mean Number of Living Children	2.3	2.8	2.1	2.9	2.3
Wants More Children					
Yes	**63.8**	45.1	56.0	27.8	57.5
No	35.8	44.4	36.9	47.2	38.1
Does Not Know	0.4	10.4	7.1	25.0	4.3
Timing of Next Birth [1]					
<12 Months	5.9	0.0	7.5	0.0	4.8
12-24 Months	18.3	2.5	18.9	5.3	15.1
25-36 Months	18.6	12.5	7.5	10.5	15.9
>36 Months	55.9	53.8	20.8	31.6	50.4
Depends on God	0.3	0.0	30.2	0.0	3.7
Undecided	0.0	2.5	0.0	0.0	0.4
Do Not Know	1.0	28.8	15.1	52.6	9.6

Notes: [1] Among those women who report wanting more children
Bulawayo, n=304; Chitungwiza, n=65; Gweru, n=47; ZINA, n=10; TOTAL, n=426

5.4.2 Facility infrastructure

A well-maintained facility ensures not only the proper care of contraceptive supplies, but also a comfortable environment for clients and providers. Clinical guidelines protect both the client and provider by ensuring that providers understand what should be done in various clinical situations. Signs outside the facility inform women that family planning services are available at a facility. Based on the facility audit instrument, Table 5.5 shows certain indicators relating to facility infrastructure by project type/location.

Conditions were acceptable at most of the facilities visited. An average of 92% of all facilities had a waiting area sheltered from the sun and rain. In Chitungwiza, the waiting area of one facility was judged to be inadequate in terms of shelter from sun and rain. Only 57% of Gweru's facilities had a working source of light, however for the entire set of facilities sampled, the percentage was

Table 5.5 Facility conditions by type/location (percent)

Condition of Facility	Bulawayo n=16	Chitungwiza n=4	Gweru n=7	ZINA n=12	Total n=39
Adequate storage facilities for contraceptives	100.0	100.0	100.0	100.0	100.0
Waiting area sheltered from sun and rain	87.5	75.0	100.0	100.0	92.3
Area affording privacy for pelvic exams/IUD insertion	100.0	100.0	100.0	100.0	100.0
Working source of light	93.8	100.0	57.1	91.7	87.2
Available source of water	100.0	100.0	100.0	100.0	100.0
Has clinical guidelines	93.8	75.0	100.0	100.0	94.9
Sign announcing FP services	25.0	0.0	28.6	75.0	38.5

Table 5.6 Percent distribution of feedback and supervision by type/location

Instrument for Feedback	Bulawayo n=16	Chitungwiza n=4	Gweru n=7	ZINA n=12	Total n=39
Has mechanism to obtain client feedback	80.2	75.0	28.6	100.0	76.9
Has mechanism to obtain provider feedback	93.7	100.0	100.0	100.0	97.4
Has received a supervisory visit in the past 6 months[1]	93.8	50.0	71.4	58.3	74.4
Mean duration (in months) since last visit: mean (range)	1.1 (0-6)	3.0 (1-5)	4.3 (1-10)	7.1 (0-38)	3.5 (0-38)

Notes: [1] n=32 (facilities which report having a supervisory visit)

much higher (87%). All facilities in Gweru and ZINA had clinical guidelines, yet they were available at only three of Chitungwiza's four facilities. All facilities had storage to keep contraceptives out of the sun and off the floor, a private area available for pelvic exams and IUD insertions, and an available source of water.

Although signs are important to inform potential clients that family planning services are available, relatively few facilities had such signs (39%). There were notable differences by type/location; none of the Chitungwiza facilities had signs, while 75% of ZINA facilities were identifiable from outside. The high proportion of ZINA locations with signs may be to publicize that at they are now authorized to offer family planning services. In other sites, this appears to be an area for potential improvement.

5.4.3 Management and logistics

Proper management, including feedback from providers, staff, and clients, is essential to the success of a facility. Good management can alleviate logistical problems including the maintenance of both contraceptive supplies and the essential equipment needed for the provision of certain methods.

Feedback from supervisors, staff and clients enhances the quality of services provided at a facility. Client suggestions can lead to needed improvements, while supervision is an important tool in monitoring quality of services. In addition to motivating the staff, supervision is essential to transfer programmatic information to providers, to correct inappropriate procedures, and to provide a forum for questioning and continuing to educate providers. Table 5.6 shows the availability of feedback and supervision by type/location.

Most clinics had mechanisms in place to solicit both client (77%) and provider (97%) feedback about the services at the facility. The most popular method to seek client suggestions was through provider questions, while provider suggestions were most often rendered through staff meetings (data not shown). Less than 30% of Gweru's facilities had mechanisms to obtain client feedback, however 100% could obtain provider feedback.

Supervisory visits are essential to ensure high quality services. Almost 75% of all facilities had received a supervisory visit in the last six months. The ZINA midwives running their own private clinics expressed confusion about who is meant to supervise them. This confusion indicates the need for a system of supervision to ensure quality services in these facilities. Only 50% of facilities in both ZINA and Chitungwiza had been supervised in the past six months.

Certain equipment must be available and in working order for the provision of different methods; the presence or absence of any item will affect the availability and the quality of services. Table 5.7 shows the level of readiness for supplying different methods. The item list in the facility audit is based on international standards, and the ideal is to have 100% of the items for all clinics. Due to potential variation in national clinical guidelines, however, clinics were assessed as having all (100%) or most (>80%) of the essential items available and in working order. In addition to equipment, which is necessary to safely and effectively provide services, IEC materials (information, education and communication) are necessary to help the client make an informed choice in her method selection.

Table 5.7 Supply of essential equipment and IEC materials (percent)

	Most (>80%)	All (100%)
Has essential equipment for provision of pills	-	100.0
Has essential equipment for provision of IUD [1]	15.4	0.0
Has essential equipment for provision of injectables [2]	20.5	7.7
Has at least 2 IEC materials[3]		71.8

Notes: [1] n=26 (facilities which provide IUD). 15 of 18 essential items must be at the facility to have at least 80%.
[2] 9 of 11 essential items must be at the facility to have at least 80%.
[3] IEC materials include: posters, flip charts, brochures/pamphlets, information sheets, job aids, counseling cards, and 'other'.

International standards establish what equipment is essential for the proper provision of each method of family planning, ranging from two essential items for the provision of the pill to eleven items for the provision of IUDs. All of the equipment essential for providing the pill was available at every facility. Very few facilities that provide IUDs had all the necessary equipment for their provision (8%), while no facilities had all of the equipment for providing injectables. The 8% of facilities where all IUD equipment was available were all ZINA clinics (data not shown).

Several differences between international standards and those in Zimbabwe may explain the small proportion of facilities with 100% of the essential equipment. For example, Zimbabwe forbids the reuse of needles, making sterilizers for injectables unnecessary. They were unavailable at 72% of all facilities providing injectables (data not shown). For IUD insertion, the push technique is reported to make the use of sterile gloves unnecessary, thus they were available in only 23% of the facilities offering IUDs (data not shown).

Due to these differences, it was determined whether facilities had 'most' (greater than 80%) of the essential equipment. Given this latitude, only 15% of facilities providing IUDs and 20% of facilities providing injectables had most of the necessary equipment. This is one area that should be targeted for improvement by all clinics.

Of seven possible IEC materials, 72% of facilities had at least two IEC materials available to counsel women. A national shortage of materials, which are produced by the Zimbabwe National Family Planning Council (ZNFPC), may contribute to this situation. In addition, local public authorities do not have the capacity to produce their own materials. Over half of the ZINA facilities, which are private, have at least five of the seven IEC materials considered for analysis (data not shown).

5.4.4 Infection prevention

An important component of high quality services is compliance with infection control procedures as outlined in the facility and/or national guidelines. Table 5.8 lists the procedures required for the provision of injectables and pelvic exams and compliance was determined through the direct observation of clinical procedures.

Table 5.8 Degree of compliance with infection control procedures by type/location (percent)

	Bulawayo	Chitungwiza	Gweru	ZINA	Total
Injectables	n=159	n=62	n=21	n=3	n=245
Washed hands before injection	5.7	3.2	9.5	33.3	5.7
Cleaned/air dried injection site	99.3	51.7	76.2	66.7	85.1
Used sterile syringe	100.0	100.0	100.0	100.0	100.0
Pelvic Exam	n=103	n=25	n=33	n=3	n=163
Washed hands before exam	34.7	77.3	60.6	70.0	47.9
Used sterilized instruments	85.5	100.0	96.9	80.0	90.1
Wore disinfected gloves	88.8	100.0	84.4	100.0	89.8
Decontaminated instruments after use	82.3	100.0	53.1	50.0	75.2

Note: This table represents those clients who had either an injectable or pelvic exam.

Compliance with infection control procedures for injectables was 100%[35] for the use of sterile syringes, yet less than 6% of providers washed their hands before giving injections. Compliance for pelvic exam procedures was near 90% on two items (used sterile instruments and wore disinfected gloves), but was lower for decontaminated instruments after use (75%) and washed hands before the exam (48%).

It is interesting to note the low proportion of providers who washed their hands both for providing injectables and performing pelvic exams. This low proportion may indicate hand washing occurred before the observer arrived, in a separate room, or did not occur at all. If it did not occur at all, this presents an issue for infection control within the clinic.

5.5.5 Method and information availability

The range of methods supplied by a facility greatly influences a client's options for method selection. A wide range of methods allows a client to choose a method that is appropriate for her physical condition and is consistent with her reproductive intentions. A woman who receives a method she prefers is also more likely to continue using the method. Table 5.9 illustrates which methods are usually provided at each subproject's facilities.

[35] In one case in Gweru, the provider made the injection with the large bore needle used to extract Depo from the bottle. Normally, this large needle is replaced following extraction with a disposable smaller bore needle for the actual injection. It was determined that this injection used a sterile syringe, but the technique was improper and resulted in a painful event for the client due to the large needle bore.

Most of the methods supplied are re-supply methods, which is consistent with the national profile, but contradicts the large proportion of women who want to wait at least three years before having their next child (Table 5.4). The study shows the four methods that are readily available are the pill, condom, IUD and injectables. Although half of the ZINA sites usually maintain a stock of IUDs, policies governing their practices do not allow the midwives to insert them. In the SEATS supported clinics, vasectomy and tubal ligation services were only available in Bulawayo, while only two ZINA sites offered spermicide and two offered Norplant.

If a facility is authorized to provide a method, it is imperative that the method be available for distribution. Lack of availability affects clients' motivation and continuation rates. Table 5.10 shows the availability of methods by type of method.

Table 5.9 Methods usually supplied by type/location (percent).

	Bulawayo n=16	Chitungwiza n=4	Gweru n=7	ZINA n=12	Total n=39
Pill-combined	100.0	100.0	100.0	100.0	100.0
Pill-progesterone only [1]	100.0	100.0	100.0	100.0	100.0
Condoms [1]	100.0	100.0	100.0	90.9	97.4
Spermicide [2]	0.0	0.0	0.0	16.7	5.3
IUD [2]	100.0	100.0	0.0	50.0	68.4
Injectables	100.0	100.0	100.0	100.0	100.0
Female Sterilization (any type)	6.3	0.0	0.0	0.0	2.6
Vasectomy	6.3	0.0	0.0	0.0	2.6
Norplant	0.0	0.0	0.0	16.7	5.1
Natural FP	18.8	75.0	0.0	33.3	25.6
Other	18.8	25.0	28.6	50.0	28.2

Notes: [1] ZINA, n=11; Total, n=38
[2] Gweru, n=6; Total, n=38

A small percentage of facilities experienced stockouts in the past six months, and half of the methods were available at all clinics that supply them on the day of the team's visit. It was noted that long-term methods are not readily available in the public sector because doctors want extra remuneration for offering these services. There are also restrictions (e.g., age) for some long-term methods. The fact that long-term methods are not available at public clinics has implications for the quality of care in terms of offering an appropriate range of contraceptive methods, allowing for informed choice and ultimately meeting women's reproductive needs.

5.5.6 Method choice, client knowledge of method, and client satisfaction

Client satisfaction is based on a number of factors including the client's perception of how she was treated during her visit to the facility, the receipt of her preferred method and her understanding of what side effects to expect from the method she receives. Table 5.11 reports three components of client satisfaction: expressing a method preference at the time of the visit, receiving the method (or having it prescribed) and knowing how to use it. These results are from the client exit interview.

Table 5.10 Stockouts of each type of method.

Method	Number of Facilities That Usually Supply the Method (of 39 possible)	Percent of These Facilities with Method Available Today	Percent of These Facilities That Have Had a Stockout in the Past 6 Months
Pill-combined	39	97.4	5.1
Pill-progesterone only	38	100.0	2.6
Condoms	38	97.4	2.6
Spermicides	2	100.0	0.0
IUD	26	100.0	0.0
Injectables	39	89.7	12.8
Female sterilization	1	0.0	100.0
Norplant	2	0.0	100.0
Vasectomy	1	100.0	0.0
Natural FP	10	n/a	n/a

The pill was the most commonly preferred method (65%) and the method most often prescribed (69%). Injectables were preferred by 30% of the clients, however only 23% actually received injectables as their family planning method. Condoms were not requested by any new clients, however they were received by 10%. This may be because condoms are often given as a back-up method in addition to a preferred method if there is any possibility of current pregnancy. Overall, 87.2% of clients reported receiving their method of choice (data not shown). Knowledge, based on the correct answer to a method-specific question about how to correctly use the method selected, was extremely high (at least 90%) for all methods received except the condom which was slightly lower at 82%. The relatively low proportion of condom recipients who correctly answered the key question ("How many times can you use a condom?") is a cause for concern in Zimbabwe, given the high prevalence of HIV/AIDS. The reason for this apparent inconsistency may be, again, the common practice of providing condoms as a back-up contraceptive method, and not as protection against STIs/HIV/AIDS. This is an area deserving attention in future training and supervision of providers, as well as in IEC materials.

Clients who are satisfied with the service facility and their chosen method are more apt to return for services and continue using family planning. Table 5.12 shows selected indicators of service acceptability, as measured through the client exit interview.

Table 5.11 Percent distribution of method preference, method prescription and knowledge of selected methods among new clients

Method	Method Preferred n=211 [1]	Method Prescribed n=211 [2]	Knowledgeable about Selected Method [3]
Pill	65.4	68.7	99.3
IUD	2.4	1.4	100.0
Injectable	30.8	23.2	92.0
NORPLANT	0.9	0.0	0.0
Female Sterilization	0.5	0.0	0.0
Condoms	0.0	10.4	81.8
Spermacide	0.0	0.0	0.0
Rhythm/ Periodic abstinence	0.0	0.0	0.0

Notes: [1] Method preference among new clients based on the client exit interview

[2] Method prescribed, distributed or referred for new clients; it was possible to mark more than one method

[3] Respondents were only asked about the method they received, or were prescribed or referred for (Pill, n=145; IUD, n=3; Injectable, n=50; Condoms, n=22). The percent reported is for those who correctly responded to a "key" question about the method received/prescribed/referred for. If more than one method was received/prescribed/referred for, the client was asked about the most effective method.

The table shows high levels of overall satisfaction, especially in the areas of feeling comfortable asking questions, being treated well by the provider and having enough privacy during the pelvic exam. Public clinics scored higher with regard to clients believing that the information they shared with the provider would remain confidential. In the public clinics over 90% of the clients felt information would be kept confidential, while over 80% felt this way in the private clinics (ZINA).

Clients were less satisfied with waiting time. Only 62% were satisfied with waiting time, ranging from 57% in Bulawayo to 87% in Gweru. On average, clients reported waiting slightly over one hour before being seen, with the longest wait reported in Bulawayo at 81 minutes. This is another area that most or all facilities could try to improve.

5.5.7 Provider counseling

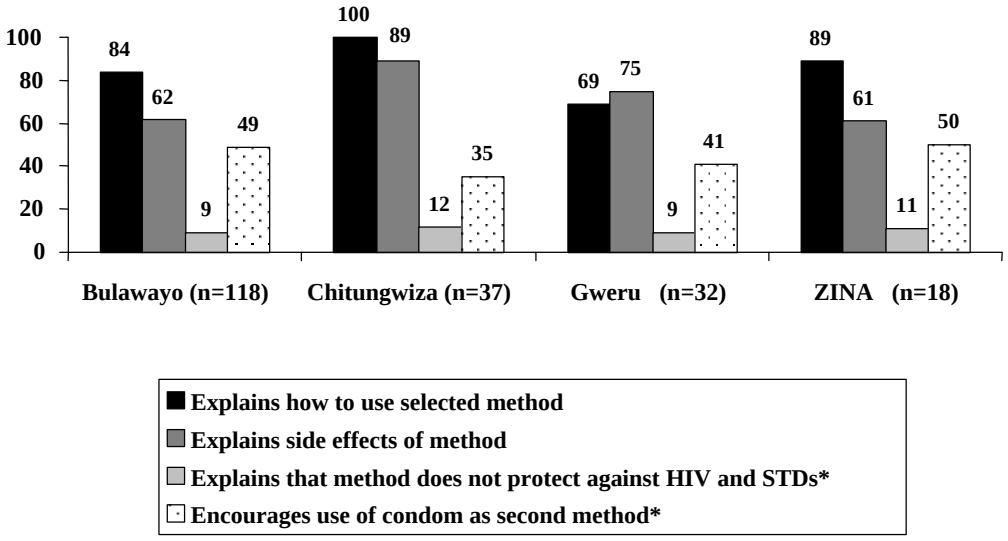
Another important aspect of quality family planning services is the proper provision of information to the client by the provider. Figure 5.1 displays selected provider actions based on the observation of client-provider interaction.

Table 5.12 Client satisfaction and appropriateness of family planning services received by type/location

Clients Reported That She Felt:	Bulawayo n=478	Chitungwiza n=144	Gweru n=84	ZINA n=36	Total n=742
Comfortable asking questions	96.4	93.1	92.9	94.4	95.3
Treated well by provider	99.2	99.3	100.0	100.0	99.2
Information given would remain confidential	91.8	96.5	97.6	80.6	92.9
Waiting time was reasonable	56.7	63.2	86.9	72.2	62.1
Privacy was adequate during pelvic examination[1]	99.0	95.8	97.0	100.0	98.2

Notes: [1] Among women who received pelvic examinations
Bulawayo, n=99; Chitungwiza, n=24; Gweru, n=33; ZINA, n=12; Total, n=168

Figure 5.1
Percent distribution of select provider actions during counseling session by type/location (new clients only)



*Calculated for those clients with methods other than condoms

Based on observation of the client-provider interaction, directions for proper use of the method prescribed and the side effects of the method were most consistently explained by the providers of Chitungwiza (100% and 89% respectively). These providers were the least likely, however, to encourage the use of condoms to prevent HIV and STIs (35%). Although very few providers explained that the method prescribed does not protect against HIV/AIDS (10% average, data not shown), between 35% and 50% of providers encouraged the use of condoms as a second method (46% average). The reason for this apparent inconsistency is that many providers gave condoms as a back-up method (e.g., if there was any possibility of current pregnancy) and not to protect against HIV/AIDS. The percentage of clients who reported discussing HIV/AIDS (in the exit interview) was also very low (14.7% of all respondents). These proportions are a concern given the high prevalence of HIV/AIDS in Zimbabwe.

5.6 Programmatic implications

Overall, SEATS and its local partners found that the QIQ methodology succeeded in measuring the selected indicators of family planning quality of care. The results identified those aspects of quality that were strong and those that were weak. It was encouraging that most of the indicators measured showed quality of care to be high. This was especially true in the areas of

- Method choice (having most approved methods available)
- Storing contraceptives adequately
- Treating clients with respect
- Providing information on how to use methods
- Assuring confidentiality
- Offering privacy
- Following most clinical guidelines and infection control measures

These are areas in which quality is acceptably high and which facilities can build upon in their efforts to improve quality. In discussions of the results with local stakeholders, however, it was stressed that high scores attained should not be viewed as a reason for complacency. In the effort to continually improve quality, organizations and facilities should begin with the attitude that quality can always be improved. It is also worth pointing out that not all facilities scored satisfactorily on the above areas. Those few sites that experienced stock-outs, for example, or where infection control measures were not followed, need to work to improve those areas in their individual cases.

Conversely, this study identified a number of areas where quality should be improved, as results were not as positive as expected or desired. Again, since there is variation between the sites, not all sites were weak in these areas. The main areas identified for improvement include

- Discussion of HIV/AIDS and other STIs
- Promotion of condoms for dual protection against both pregnancy and STIs
- Provision of information on potential side-effects and what to do in case of side effects
- Compliance with certain infection control procedures (e.g., washing hands, air drying injection site at some clinics)
- Reduction of client waiting time
- Frequency of supervision

The lack of discussion of HIV/AIDS is particularly noteworthy. Zimbabwe has one of the world's highest incidences of HIV, with approximately 25% of the population infected. It is almost exclusively transmitted through heterosexual intercourse, so family planning services would be a logical channel for conveying information on the subject. Yet very few providers or clients are discussing it. In the dissemination meetings held in Zimbabwe following this study, this topic was discussed at length, without much progress except to recognize the extent and dimensions of the issue. In general, providers know that they need to discuss the issue, but they find it very hard to do so, especially with women who consider themselves in low-risk, monogamous relationships (or who suspect they may be at risk but do not know how to discuss the topic with their partner). One major conclusion of the discussions was that a completely new paradigm may be needed to help providers deal with this issue; just teaching "what to say" isn't enough. It was also felt that more work needs to be done directly with men, and that creative IEC materials could help clients feel more comfortable in bringing up the issue.

All of the other points above were also highlighted as areas where quality could be improved in the future.

5.7 Presentation and utilization of results at the local level

Dissemination meetings were held in Zimbabwe in July 1999. The meetings were held in Harare (for Chitungwiza and nearby ZINA sites), Bulawayo (for Bulawayo and ZINA sites), and Gweru (for Gweru and ZINA sites). They were led by staff from SEATS Africa Regional Office and, in two cases, by a representative from SEATS/Washington. In all three meetings, presentations were made on the purpose of the study and the main results, followed by lengthy and lively discussion of the implications of the findings. Each meeting was a full day in length. Representatives from the Zimbabwe National Family Planning Council, USAID and other Cooperating Agencies working in Zimbabwe attended some or all of the sessions.

In general, local stakeholders reacted very favorably to both the methodological approach and the findings. Though there was a certain degree of suspicion about some of the more negative findings ("that could not be so low!"), for the most part reactions were positive and constructive. The value of doing this kind of study on a periodic basis was recognized and encouraged. Service providers and their organizations took the findings very seriously and committed themselves to seeking ways to act on quality aspects needing improvement. For many, it was the first time that they had seen reliable measurement of quality indicators, and they now had some solid basis to know which areas were strong and which were weak.

Overall, it is hoped that these findings will prove useful to providers seeking ways to improve quality at the local level. If a system is developed to repeat such a study in the future, the usefulness of the results should be further enhanced as greater effort is devoted to quality. Measurement is one of the keys to achieving quality improvement, as it helps organizations know better their current level, as well as whether things improve over time. It is hoped that this study will play a role in increasing interest in quality measurement and improvement in Zimbabwe, and that the improved services will eventually result in improved reproductive health outcomes for clients.

Chapter VI
Methodological Lessons Learned

6. Methodological Lessons Learned

6.1 Overview

As the first application of the QIQ methodology, the field test presented an opportunity to assess lessons learned and develop recommendations for future rounds of this activity. Because the field test situations were so varied, there were very few issues that were reported in all four settings (Ecuador, Turkey, Uganda and Zimbabwe). Rather, each country was confronted with a distinct set of methodological problems. Below, the range of methodological lessons learned is organized by topic. Lessons learned are related to all three data collection methodologies employed, sampling, and other data collection and analysis issues.

6.2 Observation of client-provider interaction

6.2.1 Reliability of observations

Inter-rater reliability is a concern when different observers are used to collect information about the client-provider interaction. For example, observers may not agree on what constitutes "respect" in a given interaction. If observers do not reach an agreement as to how to mark the observation guide prior to the implementation of fieldwork, there may be low inter-rater reliability on the results of the observation. In all of the field test countries, the issue of inter-rater reliability was addressed in training, during which time observers watched and rated a role-play of the client-provider interaction. Afterward, results were compared and ambiguities were resolved so observers could learn to code items in a similar manner. In Uganda, as in the other field test countries, potential observers were trained to use the observation guide and then asked to evaluate a mock client-provider interaction. However, unlike the other countries, Uganda took an extra measure to ensure greater reliability of the results by only hiring those individuals who were most accurate in completing the guide for the study.

6.2.2 Hawthorne Effect

By being present in the counseling session, an observer may change the way that a provider and a client interact with one another. A provider may feel that the presence of an observer signifies a supervisory visit and consequently may try to perform particularly well. This was the case in Uganda where the study team felt that their presence affected the provider's attitude and conduct, despite the fact that the facility staff was assured the findings of the survey would be kept confidential. Because the providers may have interpreted the visit as supervisory in nature, they appeared either unusually uncomfortable or on their best behavior. In order to minimize the potential effect of the observer, all field test teams were advised to wear the same type of clothing (often a white coat) as clinic staff and to reassure the clinic staff that the visit was not supervisory in nature.

6.3 Client exit interview

6.3.1 Recall bias

Clients who are interviewed directly after their session with the provider may not remember all of the details of what happened. A client may not correctly recall the sequence of what occurred and/or the contents of the discussion. Although none of the field test countries specifically reported this as a methodological issue, it was nonetheless addressed through the design of the client exit interview instrument, which asked specific questions about a particular topic or action. For example, the client is asked to describe the correct way in which to use her method of choice. By asking for more detailed information, the exit interview helped to discern what the client did actually remember from the session.

Note: The field test yielded highly comparable results for the observation and exit interview (of the same client), indicating that recall bias was not a particular problem in this study.

6.3.2 Courtesy bias

In exit interviews, clients can be reluctant to report that they feel dissatisfied with the services received. Rather, they tend to report that they feel neutral or positive about services received (e.g., "I am happy with the services that I received"). This

positive bias regarding services received was noted in Ecuador, where exit interviewers felt that clients reported what they thought interviewers wanted to hear. During the training phase of the field test, interviewers were instructed to stress the confidentiality of client responses so clients would feel at ease and consequently answer questions in a more honest and frank manner. In addition, a number of questions on the client exit revealed whether a particular (desirable) action had occurred, without directly asking the client her opinion about them. (e.g., "Did you and the provider discuss whether or not you would like children in the future?").

6.4 Facility audit

In the original design, the facility audit required that all of the equipment and supplies listed on the instrument be counted. However, the experience of the field test proved that this task was extremely time consuming and ultimately unnecessary for the purposes of monitoring quality. Much time can be saved and sufficient information can still be collected by simply determining if there is at least one of each item in working order.

Note: The facility audit has subsequently been changed to reflect this finding from the field test.

6.5 Sampling

6.5.1 Client volume

In countries where contraceptive prevalence is low, it may be difficult to obtain adequate numbers of family planning clients to produce a representative sample of clients and facilities within districts at a reasonable cost. Low prevalence countries present a special case where it may be desirable to stratify by low and high volume facilities, or to restrict the sample in order to address the issue of "no clients" in certain facilities and to improve the efficiency of sampling.

In Uganda, the researchers anticipated this problem. Consequently, only facilities that had a minimum of 22 or more family planning clients a month were retained in the sampling frame, and the remaining facilities were selected with probability proportional to size. However, despite these precautions, the Uganda team still experienced problems due to the fact that family planning clients tend to visit clinics on specific days of the week. While the team tried to time their visits to coincide with the days that family planning services were offered, at times this information was not available.

In Turkey, the health centers were stratified according to the average number of outpatients and FP visits per day. One-third of health centers were randomly selected from each stratum. Turkey also used a different strategy, mystery clients, to address the issue of low volume facilities. Mystery clients were used in 15 low volume clinics where it was not possible to have exit interviewers stay for a long period of time to wait for family planning clients. One mystery client went to each low volume clinic and posed as a FP client seeking either the pill or condoms. Immediately following the consultation with the provider, a modified exit interview instrument was administered.

6.5.2 Weighting

When multiple types of RH services are involved in a single study, sampling becomes more complex. Because the client volume for FP clients, post-abortion, MCH or RTI/STD services may be quite different, it is important to determine appropriate weights when more than one service is included in a given study. In Uganda, the sampling strategy that was used led to the selection of a representative sample of FP clients, and it was assumed that this sample would also be representative of ANC clients. In the event that this assumption proved false, the Uganda team also collected information on antenatal care client volume, so that the results could be appropriated weighted during the analysis.

In the QIQ field test, the client was used as the unit of analysis, since many of the indicators attempt to capture the client-provider experience. A basic decision that needs to be made in each future application of these instruments is whether to use the client or the facility as the unit of analysis. If the facility is the unit of analysis, the results will reflect the experience of clients in the average facility. If the client is used as the unit of analysis, the results will reflect the experience of the average client in the network of facilities. Which-

ever unit is used, weights will need to be applied for the other.

6.5.3 Selection bias

The QIQ methodology is limited for several reasons. First, it only reflects the experience of people who actually sought and received services from the clinic. Second, it generally reflects the experience of those who came for services during typical working hours (i.e., 9 am to 5 pm). The field test countries did not include those who came but received no services, those who stayed away entirely, or those who attended evening and/or weekend clinics. Uganda specifically reported the presence of this bias because women who work during the day in the fields, especially during the rainy season, tend to seek clinic services in the evening. Also, women who do not want to be seen seeking family planning services are more likely to visit a clinic after dark. Consequently, in Uganda, those women who came during evening hours were not included in the survey.

A different form of selection bias occurred in the Zimbabwe field test. There, one provider rescheduled all of her IUD insertions to a later date when she realized that she was going to be observed by the research team. As a result, most of the observations for this particular clinic were non-clinical procedures and counseling.

In future rounds of the QIQ, survey teams should make an effort to be available during non-traditional clinic hours. In addition, steps should be taken to ensure that visits are "unexpected" so providers will not be tempted to cancel or selectively schedule appointments with the research study in mind. Also, if it is within the scope of the research study, information should be collected about women who never make it to the facility to determine if (and why) women are denied access or leave facilities before they see a provider. Additional types of data collection would need to be used to reach these audiences (e.g., focus groups, follow-up home visits to dropouts, household surveys).

6.6 Other

6.6.1 Client flow

In the observation of the client-provider interaction, it is important to capture the entire communication surrounding the visit. In the case of CEMOPLAF and APROFE, the two NGOs surveyed in Ecuador; there are two phases to a clinic visit. First, there is a one-on-one session with a counselor. Immediately following this counseling session the client moves to the exam room to be examined and further counseled by the provider. Ideally, in this situation, the observer should remain with the client and follow her through the various phases of her visit at the clinic. However, during the field test in Ecuador, the observer was stationed in the provider's office and therefore did not observe the counseling session that occurred before the client entered the exam room. Consequently, the scores on the observation in Ecuador were consistently lower than those on the client exit interview for the same indicators. In the future, it is recommended that field teams collect information about client flow at a clinic before initiating data collection so that all aspects of the client-provider interaction are observed and recorded.

6.6.2 Sensitivity of indicators

Some programs combined results from several variables to create a "standard" (e.g., the five types of IEC materials that should be available). However, Turkey found that when they calculated standard scores, they were not sensitive enough for program monitoring. While they provided information about whether a standard was being met, they did not illustrate how far a program was from reaching it. In order to depict a more complete picture of the results, both the percent achieving the standard, and the percent achieving the result on each variable that comprises the index (e.g., percent that had a sign, posters, etc.) should be reported.

Note: In some instances, such as when presenting to policymakers, it may be more appropriate to have a succinct presentation of the results. Alternatively, program managers will tend to be more interested in detailed results that better illustrate specific weaknesses in the program and point to

ways in which to refine supervision and/or conduct future training.

6.7 Conclusion

These methodological lessons represent the range of issues encountered in the QIQ field test and can inform future applications of this methodology. Fortunately, some methodological concerns can be partially mediated through the study design and training of the research team. First, time and effort can be spent training interviewers and observers to use the data collection instruments consistently and correctly, in order to increase the validity of the results. Testing of inter-rater reliability on the observation of the client-provider interaction is also essential and should be specifically addressed in training. Other issues can be controlled through the design of the research study. For example, if it is known that client volume may be a problem, facilities can be stratified based on client load, or the study can be restricted to facilities that see a minimum number of clients per day (e.g., greater than one FP client a day). Use of alternative data collection strategies, such as mystery clients, is another way in which to address the low volume issue.

However, certain methodological limitations are beyond the control of the research team and will occur despite their best efforts. For example, providers are likely to act differently if there is an observer in the room resulting in a Hawthorne effect. In addition, even if clients are asked specific questions about their visit, they are still apt to forget aspects of the session (recall bias). Also, it may not be logistically possible for the study team to visit facilities during evening or weekend hours and consequently selection bias will occur. These methodological issues, which may occur regardless of precautions taken by the survey team, need to be acknowledged in the analysis and interpretation of results.

Chapter VII

Is this methodology “low-cost and practical?”

Jane Bertrand
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7. Is This methodology Low-Cost and Practical?

7.1 Overview

The original mandate behind the QIQ was to develop a practical, low-cost methodology for monitoring quality of care in family planning services in developing countries. With the field test completed, it is appropriate to ask: was the methodology "practical and low cost"? To this end, we have compiled information from each of the field test sites on variables that relate to the question, such as

- the scale or magnitude of the effort in terms of the number of instruments used, number of facilities visited, and the sample size for each instrument
- time and personnel required to carry out the fieldwork
- cost of the data collection

Overall, the instruments have been judged to be "practical" by those who administered them. That is, it was possible to train field personnel, pretest the instruments, conduct the fieldwork and process the data with relatively few problems. However, as to this being a "low-cost methodology," the response has been mixed. At the presentation of findings to colleagues among other USAID cooperating agencies in April 1999, [36] researchers found the price tag reasonable in comparison to similar efforts. Service providers, however, considered it expensive. We will not try to resolve this difference of opinion in this section, but rather present the data from the field test in the four countries: Ecuador, Turkey, Uganda and Zimbabwe.

7.2 Scale or magnitude of study

The field test in the four countries differed somewhat in scale or magnitude, depending upon the interests of the local implementing agency and the resources available. Six sources of difference were

- number of facilities visited
- number of data collection instruments applied at each facility
- number of clients eligible for observation or exit interviews[37]
- number of fieldwork teams collecting the data
- geographical dispersion of the facilities
- number of other topics included (if any) in addition to family planning

Number of facilities. Table 7.1 shows substantial variation in the number of facilities included per country. The Turkey study had the largest number of facilities (n=128), followed by Uganda (72), Ecuador (43), and Zimbabwe (39).

Number of data collection instruments. Some countries (Ecuador and Zimbabwe) used all three instruments, whereas others opted to use only two. Turkey implemented both the facility audit and the client exit interview, whereas Uganda used the observation and the client exit interview (having recently completed a facility survey under other auspices).

Number of observations and exit interviews. The number of observations and exit interviews also varied by country, following roughly the same pattern by country. Turkey collected the most exit interviews (n=1482), followed by Uganda (1219), Zimbabwe (742), and Ecuador (584). In terms of provider-client observations, Turkey did not use this instrument; a total of 1072 observations were conducted in Uganda, in comparison to 753 in Zimbabwe and 584 in Ecuador. Despite these differences in sample size by country, the number of exit interviews per facility was quite similar, averaging 16 per facility (with a range of 12 to 19).

[36] MEASURE *Evaluation* Project: Workshop Summary Series. 1999. "Review of the Results of the Multi-Country Field Test of Quality of Care Indicators in Clinic-Based Family Planning Programs, April 23, 1999." Arlington, Virginia.

[37] Although the number of days per facility was fixed, the number of family planning clients available for observation and exit interviews on a given day varied notably by country.

Number of fieldwork teams. The number of teams was much larger in Uganda (n=20) and Turkey (15) than in Zimbabwe (4) and Ecuador (2), most likely in response to the large number of facilities to be covered and, in the case of Uganda, the geographical dispersion of the facilities. A larger number of teams allow for completion of data collection in a shorter period of time, as shown below.

Geographical dispersion of the facilities. Turkey had by far the most concentrated grouping of facilities: all 128 were located in the greater metropolitan area of Istanbul (although it is an expansive urban area, divided in two by a major waterway). In the case of Zimbabwe, the 39 facilities were in or clustered around six urban areas. Uganda presented a greater challenge of distance, with fieldwork taking place in 13 different districts. Perhaps the most disperse was Ecuador, where teams visited 39 cities or towns in 21 different provinces.

Number of other topics included. In Ecuador and Zimbabwe, the field test focused exclusively on family planning. In Turkey, it also included modules on post-partum and post-abortion family planning services. In Uganda, the research team expanded the content beyond family planning to include the quality of prenatal services. The estimates of time and costs given below include these additional modules.

Table 7.1 Scale or magnitude of QIQ by country

Country	Number of Facilities Visited	Sample Size by Instrument			Number of Exit Interviews per Facility
		Facility Audit	Observation	Exit Interview	
Ecuador	43 (in 21 provinces)	43	584	584	14
Turkey[1]	128 (in 1 province)	128	---	1482[2]	12
Uganda	72 (in 13 districts)	---	1219[3]	1219[3]	17
Zimbabwe	39 (in 6 urban areas)	39	753	742	19
Mean	71	70	852	1007	16

[1] Note: Turkey also used mystery client observations.
[2] Note: The total "n"reflects 928 family planning, 480 post partum, and 74 post abortion client exit interviews.
[3] Note: This "n" reflects 540 family planning and 679 ante-natal clients.

Table 7.2 Personnel required for the QIQ field test by country

Country	Teams	Supervisors	Interviewers	Observers	Data Entry & Analysis
Ecuador	2	1	2	1	4
Turkey	15	4	15	N/A	4
Uganda	20	6	20	20	5
Zimbabwe	4	4	8	4	8
Mean	10	4	11	8	5

7.3 Time required to conduct the fieldwork and preliminary analysis

Table 7.3 provides estimates of the time required for different phases of the fieldwork in different countries. The length of training for field personnel was fairly consistent across countries: from 3-5 days in all cases. By contrast, the duration of data collection varied by country: from three to seven weeks (the average being five weeks). Data entry and preliminary analysis took from four to six weeks, with an average of just less than five weeks. The total time from training to the completion of data entry and preliminary analysis ranged from nine to 14 weeks, with an average duration of 11 weeks.

Although the field tests in Turkey and Uganda included a much larger number of facilities than did those in Zimbabwe and Ecuador, the former two used a larger number of teams. As a result (and because of the geographical concentration of facilities in the case of Turkey), the fieldwork and preliminary analysis was actually conducted in slightly less time in Turkey and Uganda than in the other two countries. External factors may also play a role. In the case of Turkey, the team was working to meet a deadline for a managerial review to be attended by all USAID partners in November 1998. Similarly, the Uganda team was anxious to have preliminary results to share with other USAID cooperating agencies at the April 1999 meeting. These deadlines may have influenced the use of a larger number of teams, which in term allowed for completion of the fieldwork in a shorter period of time.

7.4 Cost of the fieldwork

As a preface to the presentation of cost data below, it is important to mention a number of caveats:

- As noted above, the four countries differed on many dimensions: the number of facilities visited, the number of instruments applied at each facility, the geographical dispersion of the selected facilities, the number of teams used, etc. As such, the countries are by no means "comparable" on multiple factors, almost all of which affect cost. Consequently, the cost of the field test, or even the per facility cost of the field test, should not be interpreted as a measure of efficiency.

- Even if the volume of work and placement of clinics were similar across countries, there are differences in the salary level for field personnel by country. In addition, exchange rates can make the cost in dollars vary substantially both between countries and within a country at a given point in time.

Table 7.3 Time required to conduct the fieldwork and preliminary data analysis for the QIQ by country

Country	Length of Training (Days)	Length of Data Collection (Weeks)	Length of Data Entry and Preliminary Analysis (Weeks)	Total Time Required for the Field Test (Weeks)
Ecuador	5	7	6	14
Turkey	3	3	5	~9
Uganda	5	5	4	10
Zimbabwe	5	~6	4	~11
Mean	4.5	5	5	~11

- Cost data were not tracked using a standard instrument across countries. Rather, they were estimated from project accounting records after the data collection was completed. As such, they should be considered approximate, not exact.

- The figures given include the costs of all data collection, including for the modules not related to family planning (e.g., post-partum and post-abortion in Turkey, ante-natal care in Uganda).

It should also be noted that these figures exclude the costs of: (1) technical assistance from U.S.-based partner agencies involved in this exercise (e.g., JSI, MACRO, Carolina Population Center, Tulane University), and (2) in-country seminars or other dissemination activities because they were not standard across sites.

Despite the caveats, the data provide some idea of the range of costs for the field tests. As shown in Table 7.4, the cost of the fieldwork ranged from $19,000 to $65,000 in the four countries. Converted to a per facility basis, the cost ranged from $258 per facility in Turkey to $1070 per facility in Ecuador. Between these two extremes were Zimbabwe ($487 per facility) and Uganda ($903 per facility). These figures undoubtedly reflect a number of the factors mentioned above, in particular the number of facilities, their geographical dispersion and the inclusion of topics other than family planning. Although efficiency of data collection does influence the total cost, we have no way to measure this in the current context.

7.5 Conclusions

Is this a practical, low-cost methodology? To date, those involved in data collection have found it to be practical. As to cost, participants at a dissemination seminar in April 1999 were divided. Researchers found these costs quite reasonable, service providers found them high. The difference in perspective probably relates to the fact that researchers are more familiar with the costs of designing and conducting a respectable research study, which can often be many times the costs of any one of these field tests. By contrast, providers may have assessed the cost from the perspective of what they could do with the same amount of funds if invested in service delivery. (Or they may have mentally calculated the effects of having to absorb this cost on an existing budget for service provision.)

One might question the value of a field test that did not hold constant a number of key variables: number of facilities, types of instruments used, inclusion of topics beyond family planning, etc. In fact, the core items on the instruments were highly comparable, which was the intent of the field test, and as such it served its intended purpose. At the same time, the variations in applications across countries attest to the adaptability of the QIQ to local interests and needs.

Table 7.4 Cost of field work by country

Country	Number of Facilities	Cost of Field Work[1]	Cost per Facility
Ecuador	43	$46,000	$1070
Turkey	128	$33,000	$258
Uganda	72	$65,000	$903
Zimbabwe	39	$19,000	$487
Mean	71	$40,750	$680

[1] Excludes cost of TA and local dissemination.

In sum, there are standard costs that apply across all data collection sites: salary and fringe, transportation, per diem of field workers, printing of questionnaires, equipment and supplies for data entry, and so forth. However, the costs of the field work will vary, depending on a number of factors cited above, primarily the number of facilities, the time allotted to data collection at each, the geographical distribution of facilities, and average salary levels in the country. The cost data presented in this section reflect the general range of costs for the four participating countries, but the cost to replicate the study elsewhere can only be calculated based on the particular details of the study to be conducted and knowledge of local costs.

Chapter VIII

Recommendations for Future Applications

8. Recommendations for Future Applications

8.1 Overview

This field test of the QIQ instruments in four countries was based on a standard set of instruments and fieldworker guides, developed with input from USAID cooperating agencies (CAs) and local researchers from each of the countries. However, at the country level, there were a number of variations in the application of the instruments to meet local circumstances and programmatic needs. In this sense, the activity benefited in terms of standardization of the core items on the instruments which made the field test experiences comparable. In addition, the field test proved to be adaptable in diverse settings in which it was applied. For example, it was possible to apply these instruments

- in different countries in a variety of regions in the developing world
- with private and public facilities
- in vertical family planning services and integrated multi-purpose clinics
- in countries with high and low contraceptive prevalence
- with networks of facilities that were geographically concentrated in one case and spanned the country in another

In many cases, the four countries involved in the field test used similar strategies that proved to be effective for training, logistics, supervision, control of data quality, etc. This chapter discusses the approaches that worked well in the various country applications of the QIQ and highlights areas where country programs found particularly effective ways to address issues that arose during the field test. Below, recommendations for future applications are organized by topic.

8.2 Adaptation of QIQ to meet programmatic needs

It is possible for the standard QIQ, which focuses on family planning, to be adapted for other types of RH services. For example, Uganda was able to use many of the same questions on the ANC component of the study, although some questions differed in order to capture key aspects of the RH service of interest.

8.3 Training

8.3.1 Cover essential training topics

Most countries allocated a week for training, which generally included the following components: an overview of the study, review of data collection instruments, role-play of an observation or interview, discussion of attributes of good interviewers/observers and data quality issues. In addition, possible responses and the interpretation of atypical responses were discussed in detail for each question. Field test personnel were also asked for their comments so that the instruments could be adapted to local circumstances. Pre-test exercises, held in facilities not involved in the study, also provided a valuable opportunity for field test personnel to become familiar with field procedures and resolve any outstanding issues.

8.3.2 Screen potential fieldworkers for accuracy of work

In Uganda, potential observers were trained in how to use the observation guide and then were evaluated based on how accurately they filled out the guide during a role play situation. The people with greatest accuracy were hired to participate in the data collection activity.

8.3.3 Maximize time in training

The length of training in Turkey was shorter than in the other field test countries. In Turkey, training was streamlined by having a half-day meeting two days before the training session began. During this time, the data collection team was introduced to the objectives of the field test and the protocol for data collection. Team members then had two days to review materials before reconvening for the rest of the training activity. Other factors that explain the shorter training period in Turkey as compared to the other countries were that most of the team was comprised of health professionals and fewer instruments were used.

8.4 Sampling

8.4.1 Determine what days particular RH services are available

Facilities that have comprehensive RH services may have a schedule for days on which particular types of services (e.g., FP, ANC, MCH, etc.) are available. In addition, clients may have a tendency to visit facilities at times that do not coincide with the work schedule of the data collection team. If possible, it is important to determine this type of information prior to data collection to ensure that the clients sampled better represent those who typically visit the facility.

8.4.2 Use alternative data collection techniques in areas of low contraceptive prevalence

In areas where contraceptive prevalence is low it may be difficult to obtain a sufficient sample size, and it is possible that no clients will seek services during the day(s) of the survey visit. One way to deal with this situation is to use mystery clients and follow-up visits to client homes as explained in the Sampling Guidelines section of: *Quality of Care Indicators Survey (QIQ): A User's Guide for Monitoring Quality of Care*.

8.4.3 Determine appropriate sample size and weighting

In the case where more than one type of service is evaluated, it is important that sample size estimates be decided based on one type of service (e.g., family planning), and that client volume information be collected for the other services so that the data can be appropriately weighted for analysis.

8.5 Logistics

8.5.1 Allocate sufficient study personnel to each site

In facilities with high client flow, it is recommended to have more than one interviewer per observer in order to prevent a backlog and loss of potential respondents on the exit interview. One possible solution is to have a supervisor step in as an additional observer and interviewer during times of high client flow. In addition, if data on client volume is available, the number of observers and/or interviewers required for the exercise should be determined prior to data collection.

8.5.2 Assign study personnel based on geographical proximity

In Turkey, data collection team members were matched to facilities that they could easily access from where they lived. Efforts such as these not only ensure the continuity of the study, but may also help drive down costs associated with travel and lodging. At the same time, it is generally desirable to assign fieldworkers to clinics in which they will not be known or recognized (to create a greater sense of objectivity and impartiality).

8.5.3 Determine client flow in advance

Study personnel should determine client flow through observing clinic procedures including the ways in which clients are counseled about FP methods. In some instances, topics are covered either in a one-on-one session with a counselor or through group talks. Determining client flow is important because both the counseling and clinical aspects of the visit need to be observed.

8.5.4 Ensure instrument linkage

A given client should be identified by the same ID number on both the observation grid and the client exit questionnaire. It is recommended that the observer escort the client to the area where the client exit interview is to take place. If the observer is not able to accompany the client to the exit interview, s/he should assign an ID number to the client (if it is not assigned already) and write it on a piece of paper that the client then gives to the exit interviewer. Consequently, results can be matched across instruments in the analysis phase. This issue can be addressed in training by having the team practice linking the instruments in the manner described above.

8.6 Supervision

8.6.1 Determine the responsibilities of supervisor

Supervisors should be in charge of controlling all data collection activity within a defined region

(e.g., province, district). They can perform the important function of introducing the study to program managers at the facilities selected for the study. In addition, supervisors can help ensure data quality by reviewing the data collection instruments at the end of the day to make sure that they are filled out completely and correctly. Supervisors can also supply further information to the data collection team by determining common mistakes and discussing ways in which to eliminate them.

8.6.2 Seek permission for facility visits in advance

While it is important that supervisors initially seek permission for the study and later notify selected clinics of the upcoming visit, the actual date of the visit should not be revealed in order to conduct the study under more natural conditions; it is extremely important that these are "unplanned" visits. In Zimbabwe one provider cancelled all of her remaining IUD insertion appointments when she learned that she was going to be observed, thus biasing the results by decreasing the number of observations for that day.

8.6.3 Prepare a schedule of visits

Supervisors can oversee the field exercise more efficiently if a schedule of facility visits is prepared in advance, and if changes to this schedule are promptly communicated to the head office.

8.7 Data entry and control of data quality

8.7.1 Use check systems

It is advised that data be entered in a program where valid entries may be verified. Epi-Info is one such computer package that offers this option through its check files (.CHK).

8.7.2 Clarify ambiguities

It is recommended that data entry staff consult supervisors regarding unclear, unintelligible, or inconsistent data.

8.8 Cost

8.8.1 Streamline training

Turkey was able to contain the cost of the field test because it took place in a large metropolitan area, which resulted in low per diem cost. In addition (as mentioned earlier), a shorter training time allowed for a lower cost per facility in Turkey than in the other QIQ field test countries. Extra effort also was made to match field test personnel to facilities that were in close proximity to where they lived, resulting in further decreases in travel and per diem costs.

8.8.2 Use alternative data collection/data entry techniques

Use of hand-held computers for data collection can speed up data processing for the survey, although there would be a one-time initial cost. Hand-held computers were used successfully in a subsequent application of the QIQ in Turkey. Whereas this methodology can be very useful for the facility audit and the exit interview, it is not suitable for observation of the client-provider interview (CPI), given that the actions to be observed do not necessarily follow the sequence of items in the guide.

8.9 Dissemination and use of results

8.9.1 Disseminate results widely

The purpose of the QIQ is to provide a tool for monitoring quality, in an effort to improve programs worldwide. For this information to be useful, it must reach the people who are in a position to make programmatic improvements. Results should be disseminated to program managers and clinic staff, the Ministry of Health, relevant NGOs with an interest in QC, USAID and the CA community through reports, work plan meetings, and local, national and international seminars.

8.9.2 Make reports easy to understand and interpret

Turkey designed their feedback reports with the idea that local managers would be able to

- Find the results for their own clinic
- Understand the standards set for a particular indicator
- Understand how an indicator is measured
- Compare their facility to other facilities of the same type
- Compare their score with the average score on different facility types
- Compare their score with those scores found in different regions

Future QIQ reports that are written for local managers should use the above guidelines.

8.10 Conclusion

The above recommendations are based on the experience of the field test in four countries. While each country had a unique set of objectives for the field test, most countries did follow very similar procedures to ensure study personnel were trained properly, logistics systems were in place and data was of high quality. Much of the success of the QIQ can be attributed to well-organized research teams that thought through and prepared for the various phases of the field test.

However, there were lessons learned from this trial of the QIQ that will undoubtedly shape subsequent studies. First, it appears that cost can be decreased and training can be shortened if the people hired for the data collection team have a few days to familiarize themselves with the training materials prior to the training itself. Cost can also be contained by using alternative data collection/data entry techniques, such as hand-held computers (at least for the facility audit and exit interview). Second, if at all possible, observers and interviewers should be screened before they are hired to ensure higher quality data. Third, information about client flow within the clinic and the scheduling of various RH services is also important both in coordinating the logistics of the study and in interpreting results. Fourth, research teams may decide to change the in-clinic protocol so that all aspects of the client-provider interaction are observed. Last, the study team may have to adapt the data collection schedule so that they capture clients that are coming in for the RH service of interest.

This preliminary experience using the QIQ demonstrates that it can be adapted for other RH services and/or more than one type of RH service may be monitored at one time, if proper sampling techniques and weights are applied. Finally, results dissemination is an extremely important activity at all levels; it is essential that results be easy to understand and interpret so they may be easily applied in future efforts to improve programs.

Appendix A

Summary of country results for the short list of indicators

Appendix A

A.1 Overview

In this compilation of the country reports, we have presented the results in separate chapters for the four countries involved in the field test. Some might expect a concluding chapter that compares results from the four countries. However, we have not chosen to include such a chapter for two reasons:

A.2 Differences in sampling frameworks

The facilities included in each country are by no means "representative" of that country; rather they were selected to address the local programmatic needs of the implementing organizations. For example, the Turkey sample includes an impressive number of facilities (n=128) and four different levels of care, but they are limited to the greater metropolitan area of Istanbul only. The results from Turkey are generalizable to this metropolitan area but not to the country as a whole.

By contrast, the sample is Ecuador includes the universe of all clinics of two well-established NGOs: APROFE and CEMOPLAF. Although they have expanded services to include other aspects of reproductive health, the primary service remains family planning. They serve a paying clientele that is hardly representative of Ecuador as a whole. (One might get a very different picture if one studied the public sector family planning facilities in this country.) However, in contrast to Turkey, the facilities included in the Ecuador study constitute a nationwide network of clinics.

Indeed, it would be "comparing apples and oranges" to present data from the different countries in comparative format, given the differences in the types of facilities sampled in each country.

A.3 Purpose of the QIQ

The QIQ is intended as a tool for monitoring quality of care, with the goal of improving programs. It can be highly useful in comparing the quality of care:

- in districts that have and have not received a specific programmatic intervention (e.g., the DISH versus non-DISH districts in Uganda);
- in comparing the performance of different types of service providers (e.g., doctors and *obstetrices* in Ecuador);
- in comparing different types of facilities within a given system (e.g., comparisons of four types of health facilities in Turkey);
- in comparing quality of care for a network of facilities at two points in time (proposed for Turkey and possibly other sites).

Each of these applications involves comparisons **within** a given system of facilities. The comparisons are valid within the country context, because other factors are considered to be somewhat constant (e.g., the demand for contraceptive services in the country). Moreover, they are done in the spirit of assisting lower scoring facilities to attain a higher level of quality.

In short, it is unclear that any useful purpose is served by comparing countries on quality of care, when (1) the results are not generalizable at the national level, and (2) the programs operate under such different conditions of demand, political support, financial constraint, social norms, and so forth.

However, in this section we present a summary of the finding for each of the 25 indicators on the short list for the three countries that used the core instruments. It is intended as an inventory of results that might be instructive to future users of the QIQ in interpreting their own findings in light of previous experiences in other countries. Another use of this table is to compare the comparability of results from a given country on a given indicator from two different data sources (e.g., observation and exit interview). This analysis is ongoing and will be published under separate cover.

Summary Results from the Short List of Indicators									
		Ecuador			Zimbabwe			Uganda	
	Indicator	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview
Provider demonstrates good counseling skills	**I-1**								
Assures client of confidentiality	**I-2**	N/A	N/A		N/A	N/A		**(n=542)** 59.6	N/A
		(n=583)	**(n=583)**		**(n=684)**	**(n=684)**		**(n=523)**	**(n=523)**
Asks client about reproductive intentions: more children?	**I-3**	36.5	52.0		30.9	22.3		39.7	36.7
Asks client about reproductive intentions: when?	**I-3**	27.3			19.2			26.2	
Mentions HIV/AIDS (initiates or responds)	**I-5**	13.4	27.3		11.1	14.2		22.4	29.6
		(n=109)	**(n=109)**		**(n=135)**	**(n=135)**		**(n=88)**	**(n=88)**
Discusses with client which method she would prefer (new clients)	**I-4**	99.2	98.1		88.0	91.9		73.3	88.3
		(n=131)	**(n=131)**		**(n=157)**	**(n=157)**		**(n=123)**	**(n=123)**
Explains that method does not protect against HIV/AIDS (new users not using condoms)	**I-5**	19.2	33.9		8.5	51.6		39.7	55.7
Promotes dual method use (new users not using condoms)	**I-6**	19.1	36.6		45.8	56.1		25.9	47.6
		(n=583)	**(n=583)**		**(n=685)**	**(n=685)**		**(n=536)**	**(n=536)**
Treats client with respect/courtesy	**I-7**	99.7	100.0		99.3	99.4		99.1	99.6
Tailors information to needs of client	**I-8**		81.6			75.9			N/A
Gives instruction on when to return	**I-10**	94.2	96.2		83.0	72.4		93.7	93.5
Provider gives accurate info on method accepted (new clients)	**I-9**	**(n=145)**	**(n=145)**		**(n=180)**	**(n=180)**		**(n=123)**	**(n=123)**
How to use		83.1	97.2		93.6	92.9		84.0	79.9
Side effects		71.0	80.0		68.2	62.8		84.8	74.0
What to do in case of problems			73.1			68.9			80.5

Notes: 1) Shading indicates the variable is not applicable to the instrument; 2) The Facility Audit was not conducted in Uganda 3) Complete cases were used for indicators measured on two instruments

Summary Results from the Short List of Indicators									
		Ecuador			Zimbabwe			Uganda	
	Indicator	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview
Provider follows infection control procedures	**I-11**								
Injectable:		**(n=46)**			**(n=245)**			**(n=333)**	
-Washes hands before injections		71.7			5.7			36.6	
-Uses newly reprocessed needle, syringe		93.5			99.6			82.5	
-Cleans and air dries injection site before injection		97.8			85.1			82.3	
Pelvic exam:		**(n=420)**			**(n=163)**			**(n=44)**	
-Washes hands before exam		58.1			47.9			72.7	
-Uses sterilized or HLD instruments for each exam		98.3			90.1			65.9	
-Puts on new or disinfected gloves before each exam		90.5			89.8			81.8	
-Ensures that instruments and re-usable gloves are decontaminated		99.5			75.2			59.1	
IUD:	**I-11**	**(n=60)**							
-Uses sterilized or HLD instruments		100.0			N/A			N/A	
-Washes hands before putting on gloves		66.7			N/A			N/A	
-Gloves hands		100.0			N/A			N/A	
-Washes hands after removing gloves		81.7			N/A			N/A	
-Wipes contaminated surfaces with disinfectant		85.0			N/A			N/A	
-Ensures that instruments and re-usable gloves are decontaminated		98.3			N/A			N/A	
Provider recognizes/identifies all contraindications consistent with guidelines (among new clients):	**I-12**								
Pill		**(n=30)** 6.7			**(n=138)** 8.7			**(n=99)** 11.1	
IUD		**(n=63)** 61.9			**(n=3)** 0.0			**(n=6)** 16.7	
Injectable		**(n=46)** 80.5			**(n=58)** 8.6			**(n=333)** 17.9	

Summary Results from the Short List of Indicators									
		Ecuador			Zimbabwe			Uganda	
	Indicator	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview
NORPLANT		**(n=1)** 100.0			**(n=3)** 0.0			**(n=3)** 33.3	
Female Sterilization		**(n=2)** 50.0			N/A			**(n=3)** 33.3	
Condom		**(n=18)** 0.0			**(n=15)** 0.0			**(n= 2)** 0.0	
Spermcide		**(n=10)** 50.0			N/A			**(n=6)** 33.3	
Rhythm/ Abstinance		**(n=1)** 100.0			N/A			N/A	
Performs clinical procedures according to guidelines:	**I-13**								
Injectable:		**(n=46)**			**(n=245)**			**(n=333)**	
-Reconfirms client method choice (new clients)		100.0			92.9			81.3	
-Ensures client is not pregnant (new clients)		100.0			85.7			89.9	
-Gives injection at correct interval (continuing clients)		100.0			96.4			94.2	
-Mixes bottle before drawing dose		97.8			98.8			95.8	
-Injects in upper-outer quadrant (if gluteal)		100.0			99.2			97.4	
-Draws back plunger before injection		97.8			80.0			78.7	
-Allows dose to self-disperse		95.7			58.8			91.6	
-Disposes of sharps in proper container		100.0			98.0			86.5	
Pelvic Exam:	**I-13**	**(n=420)**			**(n=163)**			**(n=44)**	
-Prepare all instruments before exam		98.6			74.2			45.5	
-Inspects external genetailia		93.1			89.6			90.9	
-Asks the client to take slow deep breaths		76.2			76.5			50.0	
-Explains speculum procedures to the client		71.8			85.4			38.6	
-Inspects the cervix and vaginal mucosa		96.7			89.9			61.4	
-Performs bi-manual exam gently and without discomfort		89.3			80.1			59.1	

Summary Results from the Short List of Indicators									
		Ecuador			Zimbabwe			Uganda	
	Indicator	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview	Facility Audit	Client-Provider Observation	Exit Interview
IUD:		**(n=60)**							
-Reconfirms client method choice (new clients)		94.8			N/A			N/A	
-Conducts speculum exam to check for RTI/STDs		86.7			N/A			N/A	
-Conducts bi-manual pelvic exam		93.3			N/A			N/A	
-Visualizes cervix during cleaning		98.3			N/A			N/A	
-Uses tenaculum		100.0			N/A			N/A	
-Sounds uterus before IUD insertion		100.0			N/A			N/A	
-Uses the no touch technique for inserting the IUD		93.3			N/A			N/A	
-Asks client to wait 15 minutes after insertion		78.3			N/A			N/A	
			(n=584)			**(n=723)**			**(n=411)**
Staff (other than provider) treat client with dignity and respect	**I-14**		99.5			95.3			99.8
Client:			**(n=584)**			**(n=742)**			**(n=532)**
Participates actively in discussion/selection of method	**I-15**		96.6			95.3			54.3
Client believes provider will keep information confidential	**I-17**		91.2			92.9			86.6
Receives her method of choice (new clients)	**I-16**	**(n=109)** 79.5	**(n=109)** 83.5		**(n=135)** 87.3	**(n=135)** 84.6		**(n=88)** 71.6	**(n=88)** 80.9
Facility:		**(n=403)**	**(n=403)**	**(n=43)**	**(n=138)**	**(n=138)**	**(n=39)**	**(n=34)**	**(n=34)**
Has all (approved) methods available; no stockouts	**I-18**			90.7			79.5		
Has basic items needed for delivery of methods	**I-19**			0.0			0.0		
Offers privacy for pelvic exam	**I-20**	99.5	92.8	100.0	97.3	98.0	100.0	95.4	81.8
Has mechanisms to make changes based on client feedback	**I-21**			97.7			76.9		
Has received supervisory visit in last 6 months	**I-22**			39.5			74.4		
Has adequate storage of contraceptives, medicines	**I-23**			100.0			100.0		
Has state-of-the-art clinical guidelines	**I-24**			95.3			94.9		
Waiting time acceptable (<30 minutes)	**I-25**		**(n=584)**			**(n=742)**			**(n=530)**
			73.5	42.1		34.6	N/A		66.8

Appendix B

Participants Involved in the QIQ Field Test

Name	Position on Study	Organization	Title
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Sra. Rosa Gavilanes	Interviewer	Private provider	Social workers
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Name	Position on Study	Organization	Title
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Name	Position on Study	Organization	Title
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Name	Position on Study	Organization	Title
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Appendix C

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